

Thursday December 22, 1988



Environmental Protection Agency

40 CFR Part 704

Comprehensive Assessment Information Rule; Final Rule



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 704

[OPTS-82013C; FRL-3368-1]

Comprehensive Assessment Information Rule

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is promulgating a standard approach to gathering information on the manufacture, importation, and processing of chemical substances and mixtures under section 8(a) of the Toxic Substances Control Act (TSCA). This standard approach, or model rule, titled the Comprehensive Assessment Information Rule (CAIR), establishes uniform reporting and recordkeeping requirements and a list of questions from which specific information requirements will be assembled on a substance-by-substance basis. This rule will be used to obtain information needed by EPA and other Federal agencies to support the assessment and regulation of chemical substances and mixtures. EPA is also establishing specific reporting requirements for 19 substances at this time. Future additions of substances will be made through amendments to this rule announced in the Federal Register.

DATES: In accordance with 40 CFR 23.5 (50 FR 7271), this rule shall be promulgated for purposes of judicial review at 1 p.m. eastern time on January 5, 1989. This rule shall become effective on February 6, 1989.

FOR FURTHER INFORMATION CONTACT: Michael M. Stahl, Director, TSCA Assistance Office (TS-799), Office of Toxic Substances, Environmental

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SUPPLEMENTARY INFORMATION: In this rulemaking, EPA is establishing a standard approach to gathering information on the manufacture. importation, and processing of substances. This standard approach, or model rule, is called the Comprehensive Assessment Information Rule (CAIR). It establishes uniform reporting and recordkeeping requirements that can be adapted to specific substances and a standardized reporting form. This rule will reduce duplicative reporting by industry and conserve EPA resources.

Public reporting burden for this collection of information is presented in chart form in Unit XII.C. of this

preamble. These estimates include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. To locate a respondent's burden estimate on the chart, identify the substance's Chemical Abstract Service (CAS) Registry Number and the respondent category for which the report is being submitted, and locate the corresponding range. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

I. Authority

Section 8(a) of the Toxic Substances Control Act (TSCA) authorizes the Administrator of EPA to promulgate rules that require manufacturers, importers, and processors of chemical substances and mixtures (referred to hereafter as substances or chemical substances) to maintain records and submit information on such substances as the Administrator may reasonably require. Failure to comply fully with any provision of a section 8(a) rule is a violation of section 15 of TSCA and subjects the violator to penalties under TSCA sections 16 and 17.

II. Background

A. Proposed Rule

The proposed rule was published in the Federal Register of October 7, 1986 (51 FR 35762). Recognizing the wide scope of this rule and the comment period overlap with another major reporting rule, the Agency extended the comment period for an additional 60 days (for a total of 150 days) to allow sufficient time for thoughtful comment.

Extensive comments were received from the public during this time period. A brief discussion of these comments and the changes made to the rule in response to these comments is found in each section of the preamble that addresses that particular aspect of the

The Agency has also prepared a more detailed discussion of the comments and EPA responses in a document titled "Response to Comments" that is in the public record for this rule. Also included in this record are the results of a pre-test of the reporting form conducted by the Agency during the comment period.

B. Description of Rule

The CAIR has generic reporting and recordkeeping requirements and a standard list of questions. The main objective of the CAIR is to obtain necessary information in a timely fashion while conserving industry and EPA resources. The CAIR will accomplish this objective by: (1) reducing duplicative reporting by industry, (2) reducing familiarization time for industry responding to reporting requirements, and (3) reducing Agency resources needed to develop information-gathering rules and process the data reported.

It is EPA's intention to amend the CAIR from time-to-time through regular notice and comment rulemaking for purposes of adding substances to the rule. Unless absolutely necessary, no other changes will be made to the regulatory text or the CAIR form. Amendments will identify the substances for which there is an information need, the information requested, the retrospective period covered by the rule, and the categories of persons who must provide the information. Only those questions and reporting requirements listed in the amendments must be complied with. For example, EPA may require manufacturers and processors of substance "X" to respond to all of the questions in Section 1 plus questions 2.03, 3.05, and 4.05 in the reporting form, while manufacturers and processors of substance "Y" might be required to answer all of the questions in Section 1 plus questions 2.03, 5.06, 7.03, and 7.05. Hereafter, when discussing amendments to the CAIR, the Agency is referring to amendments that will add chemical substances to the rule but not alter any other parts of the regulatory text, unless otherwise stated.

C. Intent of Rule

EPA is promulgating the CAIR as an improved method for gathering and maintaining information on substances relevant to chemical risk identification, all stages of risk assessment, and control action functions. By using a uniform format and set of questions. both EPA and industry can reduce time and resources usually associated with the varying formats of traditional chemical-specific rules. In the same way, errors in reporting and interpretations of the type of data being requested can be reduced through experience with a model rule. The standardized format proposed in the CAIR will allow EPA to have a single data base for easy storage and retrieval, and will allow industry the same benefit.

Generally, regulatory agencies gather information to support the assessment and management of chemical risks through a lengthy and costly process. First, an agency determines that a particular substance under certain circumstances may present a risk to health or the environment. The agency then gathers readily available information about that substance to determine possible courses of action. This information may support a determination that regulatory action is appropriate, but precise information is usually needed to determine whether and to what degree regulation is required. Since this information is held by chemical substance manufacturers. importers, and processors and is not publicly available, the agency must use its statutory authority to gather the information.

This requires that the agency draft and issue a proposed rule, review public comments, draft and issue a final rule, and establish and maintain a data base on the reported information. During this time the agency must either delay taking risk management action or take action without complete information. Because each information-gathering rule usually has unique reporting requirements, the agency also has to respond to numerous questions following each new rule's promulgation.

Information-gathering rules may also be costly to the companies submitting the information. For each proposed rule, potential respondents review the requirements and, if necessary, submit comments. Following promulgation, the companies familiarize themselves with the final reporting requirements, locate the information in company files, complete the reporting forms, and submit them to the agency.

EPA's experience with model rules has shown that model rules offer several advantages for both EPA and respondents. For EPA, the advantages are: (1) the time to promulgate an amendment that adds chemical substances to a model rule is onequarter to one-third the time needed to publish a chemical-specific rule; (2) Agency review can concentrate on the need for information and the information request since reporting and recordkeeping requirements are standardized; (3) more efficient handling and review of completed forms due to standardization; and (4) a single, universally accessible data base is possible for storage and retrieval of information.

For respondents, model rules offer the advantage of certainty. No matter the

substance, many of a respondent's reporting and recordkeeping obligations are standardized, including the use of the same reporting form. This reduces familiarization time and reporting costs. Also, EPA's experience with a model rule has shown that as respondents repeatedly use a form, correct errors. and resubmit the form, significantly fewer errors occur. Thus, with model rules, the cost to respondents of resubmitting reporting forms is reduced. It also ensures that the Agency can access a complete and accurate data base more quickly, rather than waiting for corrections to be made.

D. The CAIR and Other Section 8(a) Model Rules

EPA designed this rule by building on its experience with two existing section 8(a) regulations: the TSCA Inventory Update Rule (IUR) (40 CFR Part 710, Subpart B; 51 FR 21438; June 12, 1986) and the Preliminary Assessment Information Rule (PAIR) (40 CFR Part 712; 47 FR 26992; June 22, 1982). The TSCA IUR requires manufacturers and importers of certain chemical substances to provide EPA with basic identification, production, and sitelimited status information every 4 years. Questions requesting the same information have been added to Section 1 of the CAIR reporting form and would be answered by persons subject to the CAIR. EPA has included an exemption in the IUR to ensure that a company reporting for the CAIR would not have to report for the IUR (40 CFR 710.35) Under this exemption, persons who must report for the CAIR are not required to submit subsequent IUR reports so long as the CAIR reporting occurred no more than 1 year prior to the period for which IUR reporting is required.

The Agency also designed the CAIR reporting form to include questions similar to those in the PAIR. Three basic differences exist between the PAIR and the CAIR: (1) only manufacturers and importers are subject to the PAIR, whereas processors are also potentially subject to the CAIR; (2) under the PAIR, respondents are required to answer every question in the PAIR (EPA Form 7710-35), whereas the CAIR lists only the specific questions (from the entire form) that must be answered; and (3) whereas the PAIR form contains only basic questions on production, use, and exposure that can support preliminary assessments of chemical substances, the CAIR includes more detailed information designed to support all stages of assessments.

Substances are added to the PAIR by (1) notice and comment rulemaking or

(2) adding a substance to the rule automatically without notice and comment and requiring reporting within 90 days. Only substances identified by the Interagency Testing Committee (ITC) under TSCA section 4(e) are added automatically.

Under the CAIR, any EPA program office requesting basic PAIR-type information on a substance can use the CAIR to gather this information. Such additions of substances will be made through regular notice and comment rulemaking. The Agency is planning to amend the CAIR, at some future date, to add the ITC automatic reporting provisions. EPA will at that time withdraw the PAIR. However, until that time, ITC identified substances will continue to be added to the PAIR.

Although not issued under the authority of TSCA section 8(a), the Superfund Amendments and Reauthorization Act (SARA) Title III, section 313 rule which was published in the Federal Register of February 16, 1988 (53 FR 4500), has some similarities to the CAIR. Like the CAIR, the SARA section 313 rule requires manufacturers, importers, and processors to report exposure-related information on listed substances. Unlike the CAIR, SARA section 313 requires annual reporting on every substance listed in the rule unless a substance is removed from the rule. To minimize the burden on companies that may have to report for both rules, EPA has purposely staggered the reporting periods for the first round of reporting and will seek ways to minimize reporting overlap in the future. Further, any substance listed on the SARA section 313 rule and also on the CAIR. will not be subject to duplicative reporting. That is, those questions on the CAIR that directly overlap questions on the SARA section 313 rule will not be asked under the CAIR for any substances that are on both rules. Data received on those substances which are on both rules will be shared between EPA's Office of Toxic Substances (OTS) and EPA's Office of Solid Waste and Emergency Response (OSWER), as well as EPA's Office of Air and Radiation and Office of Water.

Also, if EPA has collected accidental release information under the Agency's Accidental Release Information Program on a substance being considered for the CAIR, questions which are duplicative of or similar to that information will not be asked under the CAIR. In addition, EPA will consider whether the information requested, if not already available, could be gathered more efficiently or accurately under the

Accidental Release Information Program than under the CAIR.

III. The Final Rule

A. An Overview

To be consistent between other TSCA section 8(a) rules and the CAIR, EPA consolidated and incorporated many requirements found in other parts of the CFR into Part 704. Part 704 provides the framework for all section 8(a) rules and is amended as follows: The current general provisions for all TSCA section 8(a) rules apply to all section 8(a) chemical-specific rules and, unless otherwise stated, to the CAIR. Subpart A of Part 704 contains the general reporting and recordkeeping provisions. Subpart B lists chemical-specific section 8(a) rules. The regulatory text that specifies the general provisions of the CAIR is located in Subpart C, and Subpart D contains the reporting period deadlines and a matrix that lists the substances for which there is an information need, the information requested for each substance, the period covered by the rule, the persons who must provide the information. exemptions added or removed, and the effective date of the final rule.

The sub-units under Unit B below correspond to the requirements in the CAIR matrix (Subpart D of the rule). Each sub-unit describes a requirement in the rule, and the last subunit explains how these requirements are listed in the matrix. Directions for obtaining the CAIR reporting form and instructions are given in Unit F.

B. Reporting Requirements

1. Who Must Report

For the 19 substances listed in this final rule, and whenever EPA adds a substance to the rule, the Agency states who is required to report on each substance (manufacturers, importers, and/or processors) and which previous years are covered by the rule. Manufacturing activities are all those activities at one site which are necessary to produce a listed substance and make it ready for sale or use as the listed substance, including purifying and importing a substance. Processing activities, on the other hand, include (1) use of a listed substance after its manufacture to make another substance for sale or use, (2) repackaging of the listed substance, or (3) purchasing and preparing the listed substance for use or distribution in commerce. Therefore, under the CAIR, all of the steps involved in making a CAIR listed substance, including adding stabilizers and additives, which are necessary to get the substance "out the door" or ready for use, are considered part of manufacturing.

Persons who are required to report must answer the CAIR reporting form questions only for the activity that is designated in the rule. For instance, if EPA were to require manufacturers of a substance to report, then a person who both manufactures and processes the substance would not have to answer the CAIR questions for both activities, only for the manufacturing activity; however, if both were required, the company would report on both activities using the same form.

For some of these listed substances, EPA is requiring processors other than the original manufacturer or importer to report. However, since many manufacturers, importers, and processors market the listed substances to these "customers" under names other than a systematic or easily recognizable chemical name (i.e., the substances are sold under trade names), persons who buy and process the substance under a trade name may not realize that the substance is listed on the CAIR and that they are required to report. Under the CAIR, EPA considered two approaches for gathering information from customers who process a listed substance. The first approach was to list the substances in the Federal Register by chemical name and require all processors of certain substances to report. Under this option, however, the Agency would expect to receive reports from only those persons who know or can reasonably ascertain that they are processing the listed substance. EPA has therefore chosen to adopt the second approach.

This reporting/notification mechanism, listed in § 704.208 of the CAIR, requires those persons who manufacture, import, or process a listed substance and distribute that substance under a trade name, to do one of three things: report for their customers who process the listed substance; notify their customers that the trade name substance is listed by EPA and that the customers must meet EPA reporting requirements; or provide EPA with the trade name.

Persons may report for their customers who process a listed substance only if they can supply the requested information. Such reporting is due no later than the reporting period deadline for that substance listed in § 704.223(a). All reporting requirements that apply to a customer who processes the listed substance would then apply to the person submitting the report on behalf of the customer. Such persons are liable for information they report incorrectly on their customers' activities just as the customers would be for

reporting incorrectly on their own activities. Persons who sell a listed substance under a trade name and who are either unable to report for their customers or who choose not to do so are required to comply with one of the other options.

Manufacturers, importers, or processors may choose to notify, in writing, their customers who are subject to reporting and inform them of the specific section in Subpart D that identifies the substance and the processor reporting requirements. The customers who process the substance prior to the effective date of the listing of the substance must be notified by certified mail no later than 30 days after the effective date of the listing of the substance. The customers must then report to EPA within the time period specified in § 704.223(b) of the receipt of the notification. Persons who notify their customers of their reporting obligation must also inform them of the date such reporting is due, and the citation of the Federal Register that promulgated the reporting requirements on the listed substance.

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Manufacturers, importers, or processors who do not wish to report for their customers or notify them of their reporting obligations must, by 1 day after the effective date of the rule listing the substances, submit their trade names to EPA (to the same address as the reporting forms). These submissions must contain, at a minimum, the company's name and address, the address and telephone number of the company's technical contact, the chemical name and CAS number of the substance as listed in the rule, and the trade names under which the substance is marketed. The submitter must indicate that the submission is in response to a CAIR Federal Register notice.

Once the trade names are received, EPA will issue a technical amendment adding the trade names to the final rule. This amendment will be published in the Federal Register within 4 weeks after the rule has become effective, and the processors of these trade name substances would then have to submit their reports by the deadline specified in the reporting period for that amendment.

The following diagram graphically depicts the reporting schedule for each of the three customer reporting/notification options. Since the reporting period for the substances listed in this final rule is 90 days from the effective date of the final rule, the 90-day period is used in the example. Future amendments may have different reporting periods.

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SCHEDULES FOR CUSTOMER REPORTING/NOTIFICATION OPTIONS

(1) Persons Who Choose To Report For Their Customers:

Publication Effective Reports
Date Date Due

(2) Persons Who Choose to Notify Their Customers:

Publication Effective Notify Customers
Date Date Customers Report

(3) Persons Who Choose To Submit Trade Names To EPA:

Publication Submit Trade EPA Publishes Customers
Date Names Trade Names Report

|--Effective Date + 1 day--|--4--Weeks--|----90 Days-----|

BILLING CODE 6560-50-C

Persons who choose the customer notification option, but who cannot meet the deadline, may request an extension of time. Extension requests must be in writing, justify the need for the extension, and be postmarked no less than 5 days prior to the notification deadline.

Some commenters to the proposed rule suggested that the definition of "customer" was too broad in that it includes disposal facilities and persons who purchase articles. These commenters felt that such persons should not be included under the CAIR and that manufacturers and processors should not be responsible for notifying them or reporting for them. The Agency has decided to leave the definition as proposed. Since persons who import or process a listed substance as part of an article are exempt from this rule, the persons who sell these articles are not responsible for notifying their customers who process the articles.

The Agency does not agree that persons who operate disposal facilities should be excluded from CAIR reporting; processing of the listed substances at a disposal facility can present a significant potential for exposure about which EPA or other agencies may require information.

2. Exemptions From Reporting

Persons who manufacture, import, or process a listed substance are subject to this rule unless they meet one or more of the standard exemptions set forth in §§ 704.5 or 704.210. The following persons are exempt, unless the exemption is made inapplicable on a substance-by-substance basis: (1) small manufacturers (total annual parent sales are less than 40 million dollars and the company manufactures less than 100,000 pounds at a plant site, or total annual parent company sales less than 4 million dollars); (2) processors and importers of articles; (3) manufacturers, importers, and processors of substances that are

manufactured, imported, or processed solely as impurities or byproducts; (4) manufacturers, importers, and processors of research and development substances; and (5) manufacturers of nonisolated intermediates. Whenever EPA intends to change any or all of these exemptions for reporting on a particular substance, the Agency will use notice and comment rulemaking and the change in the exemption will be noted in the matrix in Subpart D of the CAIR. Two new exemptions, which are discussed below, have been added to § 704.210 in Subpart C.

EPA, under the CAIR, is requiring processors to report; however, processors who are either small or are solely repackagers would be exempt from reporting. A processor is exempt if (a) total annual parent company sales are less than 40 million dollars and the company processes less than 100,000 pounds of a listed substance at a plant site; or (b) if a processor has total annual parent company sales of less than 4 million dollars. These sales and volume limits are the same limits EPA uses to define small manufacturers. Like the small manufacturer exemption, EPA intends to revise the sales figures periodically based on the Producer Price Index for Chemicals and Allied Products.

The small processor exemption uses the same size limitations as the small manufacturer exemption because: (1) in the aggregate, for the chemical industry in general, the sales and quantities produced or processed are approximately the same for manufacturers and processors, and (2) many manufacturers are also processors and therefore are potentially subject to CAIR reporting for either or both activities. Consistent standards for both will result in an insignificant information loss and will minimize confusion for respondents.

EPA is also exempting processors who are solely repackagers. A repackager is defined as a person who buys a listed substance or mixture, removes the substance or mixture from the container in which it was bought, and transfers this substance, as is, to another container for sale. The Agency has determined that requiring such reporting would greatly expand the scope of CAIR (i.e., the number of persons who must report) without significantly adding to the quality of the data reported. Persons who engage in processing activities other than repackaging must report. Moreover, since repackagers, by definition, are preparing a substance for further use, those persons who buy the repackaged substance and process it

further will still be required to report, unless they are users of the substance. Thus, EPA, in most cases, will be able to track a substance through commerce, even if repackagers do not report. The Agency will re-evaluate this exemption in the future to determine whether it excessively limits the reporting of significant data.

If any of the exemptions stated above are changed in the rule for a particular listed substance, the Agency will indicate this by listing the exemption citation in the matrix and preceding it with a minus sign (e.g., "-\\$ 704.210"). Exemptions that are added for the first time to the CAIR will be listed in the matrix next to the substances to which they apply and will be indicated by the citation preceded with a plus sign.

3. Coverage Period

As with the other requirements described in Unit III.B. of the preamble. the dates when a company was engaged in manufacturing, importing, or processing a CAIR listed substance will help determine whether the company has to report or not. The dates must be during a complete corporate year that occurred during the "coverage period" identified with each substance in Subpart D. The coverage period is a time span that is 1 day less than 2 years; thus, no company can have more than one complete corporate year in any one coverage period.

An example of how the coverage period works is as follows. EPA issues a CAIR amendment with an effective date of November 7, 1989; the rule requires manufacturers of chemical A to report. The coverge period is from November 8. 1987 to November 6, 1989. If a company has a corporate year from January 1 to December 31 and begins manufacturing chemical A on May 27, 1989, the company does not have to report. Even though the company was making the CAIR substance during the coverage period, no manufacturing activity occurred during the complete corporate fiscal year which falls within the coverage period (January 1, 1988 to December 31, 1988).

With each substance added to the CAIR, EPA will identify one or more coverage periods. When more than one coverage period is identified with a substance, the most recent coverage period will be listed first, the next most recent second, etc. The most recent coverage period loosely corresponds to what EPA called "current reporting" in the proposal; the other periods were called "past reporting." Many commenters to the proposed rule stated

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that requiring reporting on activities that occurred in past years (i.e., past reporting) would be difficult for some companies since (1) they may have gone out of business, and (2) personnel who were engaged in these activities and files on these activities may no longer be available.

EPA has decided to continue its requirement as proposed, although in a different format for coverage periods. Although EPA will continue to require reporting on some substances with past coverage periods, persons subject to these past requirements would only be responsible for completing Section 1 of the CAIR reporting form; however, any question on the CAIR form may be asked for current coverage periods. Further, companies that were engaged in reportable activities for more than one coverage period, would only be required to report for the most recent coverage period. In addition, EPA will include no more than two past coverage periods, plus the current coverage period, for any one substance, thereby minimizing the burden on companies subject to past or multiple coverage periods.

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The Agency decided to keep some past reporting in the CAIR since if all such reporting were eliminated, batch manufacturers that did not produce a listed substance during the current coverage period would not be required to report, and the degree of past exposure would be underestimated.

For the purposes of the CAIR, EPA requires reporting only if persons currently manufacture or process chemical substances for commercial purposes. Thus, companies that manufactured or processed a listed substance in the past, but who are not manufacturing or processing any chemical substances as of the effective date of the rule or rule amendment listing a substance, are not subject to reporting. Companies that are subject to the rule who engaged in reportable activities only during a past coverage period are to report only that information known to them or reasonably ascertainable by them. Thus, some companies that cannot reconstruct data for past reporting can state that the data are unknown.

In the proposed rule EPA included requirements not only for activities that occurred in the past but also for

activities that may occur in the future. Many commenters questioned the Agency's ability to determine now what its information needs will be in the future. Further, they argued that EPA should first review the data submitted during the initial reporting period before requiring subsequent reporting. The Agency agrees. EPA will wait to propose subsequent reporting until after initial reporting requirements are received and reviewed. If subsequent reporting is deemed necessary, EPA will propose and promulgate these requirements.

The Agency believes that waiting to issue additional reporting requirements until initial data have been submitted will be beneficial to all parties. Under the proposed approach, many years may have elapsed between the proposal of additional reporting requirements and the date when actual reporting is required. For example, some substances in the October 7, 1986, proposal had +5 designations. This means that if the effective date for initial reporting was October 1, 1988, future reporting would not be due until 90 days after October 1, 1993. During the period between the proposed and final rule, new information may become available to the Agency or the public that might lessen or eliminate the need for the CAIR data.

4. Question Selection

The question selection section of the rule specifies which questions from the CAIR reporting from must be answered for specific substances. Each person subject to the rule need only answer those questions designated for his or her substance.

The question selection requirement will always include Section 1 of the reporting form. Other questions and sections of the form will be requested on an as-needed basis. These requirements will be listed in the CAIR matrix by the section or question number from the CAIR reporting form. Whenever the question selection lists a section in the CAIR form, each person subject to that requirement must answer all parts of that section. A question selection listing might be as follows: 1, 2 all, 3 all, 4.01, 4.05, 5 all. The 1, 2 all, 3 all, and 5 all, refer to entire sections of the CAIR form; the 4.01 and 4.05 refer to specific questions in Section 4 of the form.

5. Reporting Period

All persons subject to the rule must report no later than the dates specified in § 704.223(a) of Subpart D of this rule. Processors who are notified of their reporting obligation by their chemical suppliers must report within the time period identified in § 704.223(b).

Persons who cannot meet a reporting deadline can request a reasonable extension. These requests must be in writing with a justification for the extension request, and they must be received by EPA within: 30 days after the effective date listing the substance or 30 days after receiving notice from a chemical supplier of the processor reporting obligations.

Some commenters suggested that EPA provide longer reporting periods because the CAIR reporting period could overlap with that of section 313 of SARA. Since the CAIR becomes effective after the close of the first section 313 reporting, no overlap exists.

Other commenters requested more time to report than the 60 days proposed for this rule because of the resource intensive nature of CAIR reporting. The Agency has considered the comments received on the length of the reporting period and has decided to set a 90-day response period for the substances listed in today's rule. Since the 90-day response period starts when the rule becomes effective, and the rule is not effective until 44 days after today's Federal Register publication date, respondents will have several months to prepare their CAIR reports. However, if necessary, the Agency may require a shorter response period (e.g., 60 days) in some cases in the future. The reporting period for each CAIR amendment will be specified in the paragraph preceding the CAIR matrix (§ 704.223).

6. Use of the CAIR Matrix

The CAIR matrix in Subpart D of this rule lists all of the reporting requirements and any changes to the standard CAIR exemptions that may apply to each listed substance. The matrix lists substances, persons who must report, exemption modifications, coverage period, questions selected for reporting, and the effective date. The following sample matrix was developed to illustrate how the matrix in Subpart D works.

SAMPLE MATRIX

CAS No. and chemical name	Who must report	Exemptions added (+), removed (-)	Coverage period	Questions selected	Effective date
56-78-9 Chemical A 62-23-5 Chemical B	M		5/4/85 to 5/2/87	1, 2.01, 2.11, 2.12, 3.04, 4 all, 6.03, 7.01, 8.01. 1	5/3/88
				9.07, 10.06.	

M = Each Person Who Manufactured the Substance for Commercial Purposes I = Each Person Who Imported the Substance for Commercial Purposes.
P = Each Person Who Processed the Substance for Commercial Purposes

X/P = Each Person Who Manufactured, Imported, or Processed the Substance for Commercial Purposes and Distributed the Substance under a Trade Name.

As one can see from this matrix, each of the four reporting requirements is a column heading. The other column headings are the identification for the listed substance (CAS Number and Chemical Name), and the effective date of the final rule listing the substance. The first step potential respondents should take is to look at the chemical list. If they have not manufactured, imported, or processed any of the listed substances during the previous 3 complete corporate fiscal years, they do not have to report for the CAIR. If, on the other hand, they have engaged in one of those activities, they must read further.

The first variable that excludes a company from CAIR reporting means that company is not subject to reporting on that substance. For example, if a company processes a listed substance. but upon reading column 2 learns that only manufacturers and importers are required to report, that company is not subject to reporting on that substance.

The coverage period is the last variable that determines whether a company must report or not. The company would determine the complete corporate fiscal year which falls within each coverage period identified in the matrix and whether it engaged in a subject activity during each coverage period. The company would then report for the most recent complete corporate fiscal year during which it engaged in a subject activity. If the company did not engage in a subject activity during any coverage period, it need not report under the CAIR. For example, using the sample matrix, suppose a company has its corporate fiscal year from January 1 through December 31, and manufactured Chemical A from August 13, 1986 to May 27, 1987. The company's complete corporate fiscal year which falls within the coverage period (May 2, 1986-April 30, 1988) was January 1, 1987 to December 31, 1987. The company must therefore report as a manufacturer of

Chemical A from January 1, 1987 to May 27, 1987. For this activity the company is responsible for the reporting requirements in the next column (1, 2.01, 2.11, 2.12, etc.). Even though the company also manufactured Chemical A in a past coverage period (May 2, 1985 to April 30, 1987), the company does not need to report its activity during that period. A company need only report for the most recent reporting year applicable to them.

C. Levels of Effort

In response to the many questions and comments received on the four "levels of effort" set forth in the proposed rule, and a concern for lessening the burden placed on the reporting public, EPA is eliminating the "levels of effort" requirement and will require persons to report information that is "known to or reasonably ascertainable by" them as defined in § 704.3. The "levels of effort" concept was conceived by the Agency to spell out more specifically what level of effort companies would need to meet their reporting obligation. However, some commenters stated that this scheme was less clear than the "known to or reasonably ascertainable by standard used in previous rules. Thus, the latter standard has been adopted for this rule.

D. Recordkeeping

Under § 704.11, persons subject to the requirements of the rule must retain: a copy of each report submitted, supporting materials sufficient to verify or reconstruct the report, and a copy of all notices sent to customers who are required to report, with return receipt cards. The report submitted to EPA and its supporting material must be retained for a period of 3 years from the date of the submission of the report. Notices submitted to customers, including return receipt cards, must be retained 3 years from the date they were sent to the customers.

Some commenters stated that requiring records to be kept more than 2 years would place a severe burden on many companies. Further, the records that must be kept, (as set forth in the proposed rule in § 704.11(b)-all supporting material and documentation used by the person to complete each report") were viewed by the commenters as too inclusive and resource intensive to maintain.

EPA has reviewed the typical schedules for compliance inspections to determine the appropriate length of time CAIR records must be retained so that they will be available during an inspection. Based on this analysis, the Agency has determined that a period of 3 years is necessary. However, the Agency has revised § 704.11 to specify the retention only of those records mentioned in the first paragraph of this Unit.

E. Confidentiality

Section 14(a) of TSCA allows a person who submits information to EPA to assert a claim of confidentiality, if release of the information would reveal trade secrets or confidential commercial or financial information. Under the CAIR, claims of confidentiality can be asserted only at the time information is submitted and only in the manner specified in § 704.219. Detailed instructions and a substantiation form for asserting and substantiating confidentiality claims under this rule are contained in Appendix II of the CAIR Form. EPA's procedures for processing and reviewing confidentiality claims are set forth at 40 CFR part 2, Subpart B.

Any submitter who claims information on a submission as confidential is required to provide two copies of the submission: a complete copy of the form, including all information claimed as confidential, and a "sanitized" copy from which all confidential information has been

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deleted. EPA will place the submitter's sanitized copy in the public file.

The rule requires submitters to substantiate all confidentiality claims by answering questions contained in Appendix II of the CAIR form. Rather than providing a separate substantiation for each reporting item claimed as confidential, submitters may organize the claimed information into categories, (e.g., production volume or submitter identity) and submit a single substantiation for each category. In addition to answering questions pertaining to the individual categories, submitters are required to answer questions pertaining to all confidentiality claims asserted.

As is detailed in the instructions in Appendix II of the CAIR Form, each question is claimed as confidential by identifying the appropriate category of confidentiality. Only those categories identified as confidential by submitters have to be substantiated. The substantiation questions outline the analytic process the submitters should go through before asserting a claim of confidentiality, helping the submitter to focus on relevant issues.

Commenters have stated that this requirement is burdensome, and that the effort required to complete reporting forms and the accompanying substantiation would be laborious. EPA recognizes the effort necessary for reporting but does not find the burden onerous and therefore has not altered the requirement. EPA requires up-front substantiation of only the six categories of confidentiality claims rather than separate substantiation for each and every reporting item. This will minimize the reporting requirement while providing adequate substantiation.

Commenters questioned the validity of requiring up-front substantiation of confidentiality claims. Commenters stated that TSCA section 14(c)(1) contains no authority for requiring upfront substantiation of confidentiality claims. Section 14(c)(1) allows submitters to designate data as confidential and provides for separate submission of such data. While section 14(c)(1) does not specify substantiation. it does provide for designation of claims in writing and "in such manner as the Administrator may prescribe," contemplating requirements involving more than just an assertion of a claim. EPA is committed to the public disclosure of as much nonconfidential information collected under the rule as possible. Requiring up-front substantiation of confidentiality claims and continued close scrutiny of such claims through the established claim review process will ensure that as much information as possible is releasable. Public interest in the information generated by this rule justifies this approach. Up-front substantiation obviates the need for follow-up substantiation by submitters resulting from EPA review or Freedom of Information Act requests.

If a company fails to submit a sanitized copy of its submission, EPA will notify the company by registered mail. The respondent will have 30 days from the date of receipt of the notice letter to submit the required second copy. If the Agency does not receive the requested sanitized version, EPA will place the confidential copy of the submission in the public file on the 31st day after the submitter's receipt of EPA's letter. If no claim of confidentiality accompanies a document or the claim is unaccompanied by the required substantiation at the time it is submitted to EPA, the company will be notified that the unsanitized copy will be placed in the public file.

EPA will attempt to provide the public with sufficient and informative access to information collected under this rule while protecting submitters' valid proprietary interests. This will be accomplished by: (1) disclosing to the public all reported information not claimed as confidential; and (2) releasing nonconfidential aggregates of confidential information when possible.

The proposed rule specified that the sanitized copy of a confidential submission provide "generic" information for each item claimed confidential. Commenters on the proposed rule expressed concern over the practicality of a generic information requirement, pointing out the difficulty of devising generic descriptions of confidential data that would be meaningful to the public without revealing sensitive information. EPA agrees that the difficulties of such reporting are considerable and outweigh the limited usefulness of generic information. EPA has dropped this requirement.

Commenters also expressed concern over the potential for releasing confidential business information (CBI) when sharing information obtained under CAIR within EPA and with other Federal agencies. EPA's security procedures under TSCA have adequately protected against release of confidential material during the Agency's 10-year administration of TSCA. All confidential data collected under the rule are subject to the requirements of the TSCA Confidential **Business Information Security Manual** and EPA's regulations at 40 CFR Part 2, Subpart B. EPA is also working with the participating agencies and will ensure that proper physical and procedural security plans are in place to protect confidential information collected under the rule. Also, before any transfer of CBI material, EPA will clear any individual who needs access to TSCA CBI information.

The final requirements for claiming CAIR data as CBI are summarized as follows:

- 1. Make assertions for claims of confidentiality at the time information is submitted.
- 2. Sign the confidentiality certification statement on the CAIR reporting form.
- 3. Provide EPA with two copies of the submission (one complete confidential version and one "sanitized" non-confidential version).
- 4. Mark the box on each question of the form with the appropriate letter(s) representing the category of information the claim is intended to protect.
- 5. Provide complete, detailed answers to substantiation questions for each of the categories of information claimed (see step 4 above), as well as to general questions that must be answered for all claims.

F. The CAIR Reporting Form

EPA has compiled a comprehensive list of questions in the CAIR reporting form consistent with the information types listed in TSCA section 8(a)(2). Since many kinds of information will be needed to support the variety of chemical risk identification, assessment. and control action functions of EPA and other Federal agencies, these questions vary in the type of information elements and comprehensiveness. For each listed substance, EPA will ask only those questions that are pertinent to planned risk identification, assessment, or control actions for that substance. Persons subject to the CAIR must answer only those questions listed for the substance in the matrix in Subpart D of the rule.

The reporting form is divided into 10 sections, each section containing a list of specific questions. The form covers: plant site information; chemical identification; production, processing, and importation volumes; physical/chemical properties; environmental fate data; economic and financial information; manufacturing and processing information; waste generation and management; worker exposure; and environmental release.

The reporting form also includes detailed instructions including sample answers. There are tables for converting numeric responses to metric units, and a glossary that defines key terms. Since the proposal, the Agency has clarified some definitions and added some others.

Section 1 of the form must be completed by all respondents; the remaining parts are to be completed as specified in Subpart D of the rule. Questions in Section 1 ask for basic information, for example: plant site classification, respondent identification. and substance identification. Section 1 also contains questions for persons who sell or buy trade name products and a certification statement for persons who had previously submitted information

requested in Subpart D.

Companies that voluntarily submit information to EPA or other Federal agencies are encouraged to use the CAIR form. If the substance they are reporting on is later added to the CAIR. these companies may be exempt from resubmitting the previously reported information. The companies would still be required to complete and submit Section 1 of the CAIR reporting form. However, the companies would be exempt from reporting any other data that were previously submitted, provided: that the previously submitted data are no more than 3 years old as of the effective date of the substance's addition to the rule, the data are still complete and accurate, and a copy of the previous submission is attached. Persons who use this exemption must sign the statement in Section 1 that certifies that the previously reported data meet the requirements set forth in the exemption.

At times, CAIR may be used to require reporting on the same substance more than once. Some respondents may have little or no change to report in the second submission; these companies can use the same exemption discussed above for voluntary reporting. Such respondents need only complete Section 1 of the reporting form, specify the date of the previous submission, and certify that the data are still complete and accurate. This exemption will eliminate duplicative reporting and reduce the burden on companies subject to reporting more than once on a listed substance.

The Agency has revised the form based on public comments. In general, EPA has made the form easier to complete by eliminating complex and unnecessary questions, However, questions that are likely to be asked in the future, though not requested in this iteration, remain on the form. The Agency has added clarifying language to the form to assist the respondent, and has also revised the instructions and glossary to add more sample answers and definitions. CAIR forms and

instructions may be obtained by telephoning the TSCA Assistance Office at (202) 554-1404, or by writing to the TSCA Assistance Office (TS-799), Office of Toxic Substances, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460.

Some commenters were concerned that EPA will not have the staff to respond to the many questions the commenters anticipate will be asked during the reporting period. EPA assures the public that this will not occur Persons who have general questions concerning the rule or reporting form may call the TSCA Assistance Office at (202) 554-1404. TDD: (202) 554-0551. The Agency has also established a CAIR Office staffed by persons who can answer technical questions on the requirements of the rule and the reporting form. When necessary, the TSCA Assistance Office will refer callers to the CAIR Office. Further, the questions of general interest asked during this time, and EPA's responses, will be summarized in a "Question and Answer" document. This document will be included with each CAIR form the Agency sends out starting with the second iteration of the CAIR.

IV. Substances listed in this Final Rule

Two program offices in EPA and three other Federal agencies nominated 47 substances for the proposed rule. After thoroughly reviewing the candidates, two agencies have removed their requests, and EPA has reduced its own list of chemical candidates. The rule now contains 19 substances. The reasons for withdrawal of substances, a summary of the concerns for the remaining substances, and how the requested information will be used follows. The substances are listed in Subpart D, § 704.225, of the regulatory text. These are substances for which: (1) the agencies know or suspect cause adverse health or environmental effects yet lack current exposure data; (2) the agencies believe data gaps are significant: and (3) the agencies place a priority on the need for the requested information to complete assessments of the substances. The substances and the offices that nominated them are listed in Table I in this Unit of the preamble. Additional background information on the substances is in the public record for this rule.

Literature searches were undertaken for the information requested by the offices that nominated substances for this rule. A listing of the substances, along with the information requests, was sent for review to each office in EPA and other Federal agencies participating in the CAIR's development. These

offices searched their records for information on the substances; however, the searches did not provide the needed information.

The following offices and agencies nominated the substances included in this final rule: EPA's Office of Air and Radiation (OAR), EPA's Office of Toxic Substances (OTS), and the National Institute for Occupational Safety and Health (NIOSH). A total of 23 nominations were made by these offices: however, since 4 of these nominations were multiple nominations (i.e., substances nominated by two offices). 19 substances are listed in this rule. Table I of this Unit of the preamble lists the 19 chemical substances.

The 19 substances listed in this rule include 7 hazardous substances regulated under the Comprehensive Environmental Response. Compensation, and Liability Act of 1980 (CERCLA). CERCLA requires persons who are in charge of vessels or facilities. to immediately notify the National Response Center ((800) 424-8802 or (202) 426-2675) when hazardous substances are released in quantities that are equal to or greater than the reportable quantities (RQs). (See CERCLA section 103 and 40 CFR Part 302: 50 FR 13456. April 4, 1985; 51 FR 34534, September 29, 1986.) CERCLA hazardous substances are listed in Table 302.4-List of Hazardous Substances and Reportable Quantities (50 FR 13475 and 51 FR 34541).

The Agency received many comments on the Federal government's justification for requesting reporting for some of the substances. For the final rule, the Agency has added additional background material on why the substances are listed in the rule, and what the requesting offices intend to do with the CAIR reported data.

The Consumer Product Safety Commission (CPSC) nominated eight substances for the proposed CAIR but dropped one substance (Urea, N-(4chlorophenyl)-N'-(3,4-di-chlorophenyl)-, CAS No. 101-20-2) when it was determined that, although the substance was on the TSCA Inventory, it presently had no known TSCA uses and will subsequently be removed from the Inventory. CPSC dropped their remaining substances because of unexpectedly high costs to industry for compliance with CAIR, and because information gathered under the PAIR, the Federal Insecticide, Fungicide, and Rodenticide Act, and possibly, SARA, though not as detailed as CAIR information, will probably be sufficient for their needs.

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The Occupational Safety and Health Administration (OSHA) had requested information on seven chlorinated solvents listed in the proposed CAIR when it was preparing a Notice of Proposed Rulemaking for one of them, Methylene Chloride (DCM). Because of the length of the CAIR rulemaking process and the current limitations on the scope of the evolving rule, OSHA proceeded with a survey of DCM. This survey included questions about the other chlorinated solvents frequently used as substitutes for DCM. Through its survey, OSHA compiled the material needed for its analysis of DCM. Thus, it has withdrawn its nomination of the seven chlorinated solvents.

NIOSH has requested information on one of the substances listed in the CAIR-4,4'-Methylenebis(-2chloroaniline) (MBOCA) (CAS No. 101-14-4). MBOCA is a known animal carcinogen. Potential for occupational exposure exists because MBOCA is widely used as a curing agent in the production of cast polyurethane articles. OTS has promulgated a chemicalspecific TSCA section 8(a) rule on MBOCA requiring notice to EPA of the initiation of any manufacture of MBOCA in the U.S. However, that rule will not provide the information NIOSH needs concerning exposures from current uses of imported MBOCA. All of the questions NIOSH requested pertain to identifying the number of workers exposed, degree of exposure, and extent of medical and environmental monitoring. This information is useful to NIOSH in identifying worker groups suitable for epidemiologic study and/or notification and screening programs. The extent of MBOCA use is difficult to characterize because not all polyurethane manufacturing plants use MBOCA, and those that do, use it in a variable proportion of their products. Although efforts have been made by OSHA, NIOSH, and EPA to characterize the extent of exposure to MBOCA, estimates of numbers of workers exposed have been very uncertain. The degree of worker exposure at facilities that use MBOCA in the manufacture of polyurethane products is also difficult to estimate because there is no centralized data collection of environmental and medical monitoring results.

NIOSH can use the data collected under CAIR to identify sites for several types of occupational health research studies, including industrial hygiene surveys, surveys on the efficacy of monitoring techniques, epidemiologic studies, and identification of sites for an industry-wide exposure registry. The CAIR data will also be used in

formulating NIOSH recommendations for limiting occupational exposure to MBOCA. Given the potential for continued worker exposure in the processing of MBOCA, NIOSH believes that an ongoing and comprehensive assessment of worker exposure to MBOCA is warranted.

EPA's Office of Air Quality Planning and Standards (OAOPS) of the Office of Air and Radiation has requested information on five of the substances listed in the CAIR. They are four Toluene Diisocyanates (TDI isomers): Benzene, 1,3-diisocyanato-2-methyl-(CAS No. 91-08-7), Benzene, 2,4diisocyanato-1-methyl- (CAS No. 584-84-9), Benzene, diisocyanatomethyl-(CAS No. 1321-38-6), Benzene, 1,3diisocyanatomethyl- (CAS No. 26471-62-5); and Chlorine (CAS No. 7782-50-5). The TDI isomers as a group of compounds present potential health treats and have large production volumes. All of the substances nominated are volatile and can be absorbed through the respiratory tract. Human effects that result from exposure to these substances can include potential carcinogenic, teratogenic, or mutagenic responses; extreme eye, lung, and mucous membrane irritation; or neurotoxic effects. The toxicity of these substances and their high level of production has raised concerns about the potential for human health effects from ambient air exposure. OAQPS needs detailed production and exposure information to determine whether these substances present an actual threat to human health.

Benzene, 1,3-diisocyanatomethyl-(CAS No. 26471-62-5) has been classified as a Group B2 carcinogen based upon the EPA Guidelines for Carcinogen Risk Assessment, September 24, 1986 (51 FR 33992). This classification indicates that there is sufficient evidence of carcinogenicity from animal studies. The potential health effects, other than cancer, associated with exposure to TDI isomers include respiratory effects (irritation/ inflammation of the respiratory tract. pulmonary hypersensitivity, lung function decrements), dermal sensitization, and skin and eye irritation. The potential health effects associated with exposure to chlorine are eye and respiratory irritation at lower concentrations and pulmonary edema leading potentially to death at higher concentrations.

The data developed through reporting under the CAIR will be used to develop the exposure and risk analyses for these substances, thereby supporting decisions on the need to regulate these substances under the Clean Air Act (CAA).

OAQPS has dropped two of the substances (ammonia and propylene oxide) it nominated in the proposed rule because CAA regulatory evaluations are now essentially complete for these substances. In addition, OAQPS has dropped styrene because of the high costs to industry associated with reporting on this substance and the high number of burden hours which would be utilized.

OTS had requested information on 23 of the substances listed in the proposed CAIR. The substances had been nominated by two different divisions of OTS. Four of the substances were also among the group nominated by OAQPS.

The 17 substances nominated by the Exposure Evaluation Division (EED) have been dropped from this final rule. The substances fell under three categories: (1) fertilizers widely found in ground water, (2) volatile organic compounds found in ground water, and (3) some chlorinated solvents.

The fertilizers have been eliminated from this rule because these substances are no longer of high priority to EED. While EED remains concerned about the exposure potential of these substances, the resources may not be available to properly assess CAIR data if it were reported.

Data on the volatile organic compounds will probably be available following SARA section 313 reporting. It is likely that this information will be sufficient to meet the needs of EED, thus negating the need for CAIR data.

The SARA section 313 rule will also provide data needed by EED in their assessment of the chlorinated solvents. Further, data submitted to the Office of Air and Radiation under section 114 of the CAA has provided significant information on the major point sources of the chlorinated solvents. In addition, the chlorinated solvents project is expected to be completed before the data are expected under the CAIR. Finally, CAIR addresses manufacturers and processors, not the users of substances who are of most interest to the solvents project.

If, after the review of these alternative sources, EED decides that additional CAIR data are needed, EPA will review and promulgate reporting requirements and questions, or a subset of questions, listed in the proposed rule.

The Existing Chemical Assessment Division (ECAD) of OTS had nominated 18 of the OTS substances. ECAD has decided to withdraw one chemical substance, acid orange 7, because other higher priority efforts precluded further work on this substance at this time. The 17 remaining substances fall within 5 groups, the first group includes acetamide (CAS No. 60-35-5) and Broenner's acid (CAS No. 93-00-5). Acetamide is a known animal carcinogen, and Broenner's acid may contain the impurity betanaphthylamine, a known human carcinogen. Preliminary assessments had been conducted for both acetamide and Broenner's acid, but too little exposure-related information was available to proceed with an assessment. Human and environmental risk is largely unknown due to the lack of available exposure data. It is for this reason that EPA has requested such a broad range of information on these substances. Should subsequent assessments of these substances indicate potential risks, OTS will consider regulations to reduce identified risks where necessary.

The second group consists of certain substances found in human adipose tissue. These four substances are phenanthrene (CAS No. 85-01-8) ethanol, 2-chloro-, phosphate (3:1) (CAS No. 115-96-8); pyrene (CAS No. 129-00-0); and dimethyl disulfide (CAS No 624-92-0). These substances have come to the Agency's attention through the systematic screening of chemicals identified in human tissue samples and other environmental media. The widespread exposure demonstrated by these data from the National Human Monitoring Program, coupled with known information on the toxicity of these substances, warrants investigation of the possible sources of contamination. Manufacture, process, and use information needed to complete risk assessment of these substances is not available through other sources: the CAIR data will enable the exposure assessment to proceed without further delay. The exposure assessment, in turn. is a component of the broader risk assessment process conducted to determine if risk reduction alternatives need to be considered. These risk assessment and risk management activities will result in some type of risk reduction under TSCA, referral to another Agency program office or Federal agency, or a drop from further consideration because of low exposure potential, or low priority for other reasons.

The third group consists of four substances: hydroxylamine (CAS No. 7803-49-8) and three of its salts (CAS Nos. 5470-11-1, 10039-54-0, and 10046-00-1). The toxic properties of hydroxylamine are documented in OTS' Chemical Hazard Information Profile

(CHIP) document (September 11, 1984). These include hematologic, genotoxic, and developmental effects. Exposure may occur during many possible uses of hydroxylamine and its salts. The best documented use is in color developer solutions, but the National Occupational Hazard Survey (NOHS) lists a wide variety of industries with potential hydroxylamine exposure. EPA has not been able to document actual use or the extent of use of hydroxylamines outside chemical processing, photo developing. and laboratory research. Furthermore, the Agency has little information on the amount of hydroxylamines in these known uses. Concern is warranted since the possible uses of hydroxylamines as antioxidants, for example, could cause widespread exposure.

The CAIR is intended to obtain information that verifies some of these suspected uses (or verifies that these uses are not widespread). The CAIR will also provide some information on amounts and concentrations of the hydroxylamine compounds in various uses, and exposure data. This information can be used to focus the Agency's efforts on hydroxylamine uses with highest exposures and determine whether these uses may present an unreasonable risk.

Preliminary risk evaluations were conducted by ECAD on the fourth group: semicarbazide (CAS No. 57-56-7). semicarbazide hydrochloride (CAS No. 563-41-7), and 1,1,2,2-tetrabromoethane (CAS No. 79-27-6). Semicarbazide and semicarbazide hydrochloride present carcinogenic, teratogenic, and acute health concerns. Only limited production, exposure, and use data are available for these two substances. Two manufacturers and one importer have been identified, but these substances are apparently produced for captive use by a number of companies. In addition, little information is available on the number of processors, their employees. and extent of employee exposure. Three uses have been reported, but other potential uses have been identified. These other uses may involve exposures of a greater magnitude or by a different route than those uses known to exist. Tetrabromoethane also raises carcinogenic health concerns in addition to causing acute and chronic liver, kidney, and lung effects. Until recently, production was nearly 5 million pounds per year, with nearly all used as a catalyst or catalyst initiator in the oxidation of p-xylene to produce terephthalic acid. Production has reportedly decreased substantially during the last 2 years, which mitigates the risk case. The information required

in the CAIR will confirm this change in production needs and provide information on the use pattern.

Risk assessments are planned for the fifth and final group: the TDI isomers. These are the same substances nominated by OAQPS, and include two individual TDI isomers and two CAS numbers for mixed TDI isomers Exposure to TDI has been associated with carcinogenic, respiratory. immunologic, dermal, and neurologic effects as well as isolated reports of hematologic and gastrointestinal symptomology. It is apparent that the observed effects are directly related to the exposure concentration, length of exposure, and the route of exposure.

OTS in coordination with OAOPS, NIOSH, and CPSC, has substantial concern for persons exposed to TDI in several situations. First, persons residing in the vicinity of TDI manufacturing, processing, and use facilities may be exposed to fugitive TDI emissions. Accordingly, OAQPS is issuing CAA section 114 letters to TDI manufacturers to obtain emissions information. OTS and OAQPS intend to share these data. CAIR questions to TDI producers that will be addressed through CAA section 114 letters have been withdrawn. Emissions data from non-producers (importers and processors) will continue to be sought through CAIR.

Clearly the projected regulatory endpoints, if any, for TDI cannot be suggested until all the data are available and analyses have been made. The extremely broad spectrum of applications for TDI-containing materials mandate that EPA perform detailed risk/benefit analyses regarding the TDI isomers. These, of course, require information that only industry can provide.

The second exposure of concern to OTS and NIOSH is occupational exposure to TDI through processing or use of TDI-containing materials. OTS will be sharing these CAIR-generated data with NIOSH. As appropriate, the American Conference of Governmental Industrial Hygienists (ACGIH) and OSHA will be advised of significant findings.

Lastly, both CPCS and OTS share interests in consumers potentially exposed to TDI through home use of publicly available consumer goods containing this diisocyanate. These products include sealants, coatings, adhesives, foam insulation, and polyurethane finishes. Any information obtained will be shared with CPSC.

The chemical list which cites the offices that nominated the substances follows.

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TABLE I-CHEMICAL LIST

Federal agency requesting information Who must report		Coverage period	Questions selected				
	PA/OTS/ECAD M, X/P, I, P4 2/8/87-2/5/89		Hydrazinecarboxamide (CAS No. 57-56-7) 1, 2.08, 2.12, 2.13, 9.02, 9.03, 9.06.				
EPA/OTS/ECAD	M, I	2/8/87-2/5/89	Acetamide (CAS No. 60-35-5) 1, 2.01, 2.04 thru 2.05, 2.08, 2.12 thru				
EPA/OTS/ECAD	M X/P I P	2/8/87-2/5/89	2.14, 2.17, 3.04, 9.04 thru 9.07.				
EPA/OTS/ECAD	M, X/P, I, P	2/8/87-2/5/89	Ethane, 1,1,2,2-tetrabromo- (CAS No. 79–27–6) 1, 2.08, 2.12, 2.13. Phenanthrene (CAS No. 85–01–8) 1, 2.01, 2.03, 2.05 thru 2.08, 2.11 thru 2.14, 2.16, 2.17, 9.02, 10.05, 10.06. Benzene, 1,3-diisocyanato-2-methyl- (CAS No. 91–08–7)				
EPA/OAR 1		2/8/87-2/5/89					
	X/P, P	2/8/87-2/5/89	. 1, 2.05 thru 2.07, 2.11, 4.01, 7.03 thru 7.06, 10.02, 10.08.				
EPA/OTS/ECAD		2/8/87-2/5/89	1, 2.04 thru 2.09, 2.11 thru 2.16, 3 all, 4.01 thru 4.05, 5 all, 6.05, 7.01, 7.05, 7.06, 8.01, 8.05, 8.06, 8.23, 9.01 thru 9.15, 9.19, 9.20, 9.22, 10.01, 10.02, 10.05, 10.09 thru 10.16, 10.23.				
EPA/OTS/ECAD	1	2/8/87-2/5/89	2-Naphthalenesulfonic acid, 6-amino- (CAS No. 93-00-5) 1, 2.01, 2.04 thru 2.06, 2.08, 2.11, 2.12, 2.17, 3.04, 4.01, 9.07, 10.05, 10.06.				
NIOSH 3		2/8/87-2/5/89	Benzeneamine, 4,4'-methylenebis[2-chloro- (CAS No. 101-14-4) 1, 9.01, 9.03, 9.06, 9.08, 9.12, 9.15.				
EPA/OTS/ECAD	<u> </u>	2/8/87-2/5/89	Ethanol, 2-chloro-, phosphate (3:1) (CAS No. 115-96-8) 1, 2.01, 2.03, 2.05 thru 2.08, 2.11 thru 2.14, 2.16, 2.17, 9.02, 10.05, 10.06.				
EPA/OTS/ECAD		2/8/87-2/5/89	Pyrene (CAS No. 129-00-0) 1, 2.01, 2.03, 2.05 thru 2.08, 2.11 thru 2.14, 2.16, 2.17, 9.02, 10.05, 10.06.				
EPA/OTS/ECAD	M, X/P, I, P	2/8/87-2/5/89	Hydrazinecarboxamide, monohydrochloride (CAS No. 563-41-7) 1, 2.08, 2.12, 2.13, 9.02, 9.03, 9.06.				
EPA/OAR	M. I	2/8/87-2/5/89	Benzene, 2,4-diisocyanato-1-methyl- (CAS No. 584-84-9)				
	X/P. P	2/0/07-2/5/09					
EPA/OTS/ECAD	M, X/P, I, P	2/8/87-2/5/89 2/8/87-2/5/89	1, 2.04 thru 2.09, 2.11 thru 2.16, 3 all, 4.01 thru 4.05, 5 all, 6.05, 7.01, 7.05, 7.06, 8.01, 8.05, 8.06, 8.23, 9.01 thru 9.15, 9.19, 9.20, 9.22				
EPA/OTS/ECAD	M, I	2/8/87-2/5/89	Disulfide, dimethyl (CAS No. 624-92-0) 1, 2.01, 2.03, 2.05 thru 2.08, 2.11 thru 2.14, 2.16, 2.17, 9.02, 10.05, 10.06.				
EPA/OAR	M. I	0/0/07 0/5/05	Benzene, diisocyanatomethyl- (CAS No. 1321-38-6)				
	X/P. P	2/8/87-2/5/89					
EPA/OTS/ECAD	M, X/P, I, P	2/8/87-2/5/89 2/8/87-2/5/89	1, 2.04 thru 2.09, 2.11 thru 2.16, 3 all, 4.01 thru 4.05, 5 all, 6.05, 7.01, 7.05, 7.06, 8.01, 8.05, 8.06, 8.23, 9.01 thru 9.15, 9.19, 9.20, 9.22				
EPA/OTS/ECAD	M, X/P, I, P	2/8/87-2/5/89					
EPA/OAR		2/8/87-2/5/89	2.14, 3.04, 6.03 thru 6.05, 9.01. Chlorine (CAS No. 7782-50-5) 1, 2.05 thru 2.07, 2.11, 4.01, 7.03 thru				
EPA/OTS/ECAD		2/8/87-2/5/89	7.06, 10.02, 10.08. Hydroxylamine (CAS No. 7803–49–8) 1, 2.07, 2.12 thru 2.14, 3.04, 6.03 thru 6.05, 9.01.				
EPA/OTS/ECAD		2/8/87-2/5/89	Hydroxylamine, sulfate (2:1) (CAS No. 10039–54–0) 1, 2.07, 2.12 thru 2.14, 3.04, 6.03 thru 6.05, 9.01.				
EPA/OTS/ECAD	M, X/P, I, P	2/8/87-2/5/89	Hydroxylamine, sulfate (1:1) (CAS No. 10046-00-1) 1, 2.07, 2.12 thru 2.14, 3.04, 6.03 thru 6.05, 9.01. Benzene, 1,3-diisocyanatomethyl- (CAS No. 26471-62-5)				
EPA/OAR	M,I	2/8/87-2/5/89	1				
EPA/OTS/ECAD	X/P, P M, X/P, I, P	2/8/87-2/5/89	1, 2.05 thru 2.07, 2.11, 4.01, 7.03 thru 7.06, 10.02, 10.06, 10.08. 1, 2.04 thru 2.09, 2.11 thru 2.16, 3 all, 4.01 thru 4.05, 5 all, 6.05, 7.01, 7.05, 7.06, 8.01, 8.05, 8.06, 8.23, 9.01 thru 9.15, 9.19, 9.20, 9.22, 10.01, 10.02, 10.05, 10.06, 10.09 thru 10.16, 10.23.				

V. CAIR Information Management

EPA has developed a data base to store all of the reported CAIR information in a manner that allows EPA to determine easily whether the required data have already been collected under the CAIR, to produce reports in standard formats, and to protect proprietary information. The data base is an essential component of

CAIR information management. Offices considering the development of information-gathering rules will be able to check the CAIR data base before requesting the information from

¹ EPA/OAR = Environmental Protection Agency—Office of Air and Radiation.
2 EPA/OTS/ECAD = Environmental Protection Agency—Office of Toxic Substances—Existing Chemical Assessment Division.
3 NIOSH = National Institute for Occupational Safety and Health.
4 M = Each Person Who Manufactured the Substance for Commercial Purposes.
I = Each Person Who Imported the Substance for Commercial Purposes.
P = Each Person Who Processed the Substance for Commercial Purposes.
X/P = Each Person Who Manufactured, Imported, or Processed the Substance for Commercial Purposes and Distributed the Substance under a Trade Name.

industry. This procedure will help reduce duplicative requests. Further, reported data will be available quickly and in an appropriate format for the user's review.

Commenters on the proposed rule expressed concern about EPA's ability to manage the quantity of data that the CAIR will generate. EPA plans to devote substantial resources for the implementation of the CAIR. While the CAIR will produce a significant amount of data, EPA has the necessary systems and personnel to process the volume of data generated by the CAIR. EPA has experience with processing large amounts of data from the TSCA section 8(a) PAIR, and IUR reporting, and will be able to both process CAIR data and make it available as needed.

VI. The CAIR and Other Information-Gathering Mechanisms

The comprehensive nature of the CAIR and the reporting form allow EPA in many instances to gather information for offices in EPA and other Federal agencies. However, the CAIR is not being promulgated as a replacement for all other information-gathering regulations, nor has any other office delegated its information-gathering authority to the CAIR. The CAIR will be used only when it is appropriate and is the most efficient means to gather information. Other agencies or EPA offices will use their own authority under circumstances such as: (1) the substance of interest cannot be regulated under TSCA (e.g., the substance is not a "chemical substance" or "mixture" as defined in section 3 of TSCA); (2) the information being sought could be gathered more efficiently using another authority; or (3) the information being sought is more specific and detailed than would be elicited by the questions in the CAIR reporting form. Therefore, while other offices within EPA and other agencies will consider utilizing the CAIR for informationgathering, EPA does not expect the CAIR to be a replacement for all datagathering regulations.

VII. Implementation of the Rule

A. The Need for Information

Prior to listing the 19 substances in this rule, EPA searched for the requested information to determine if the information was already available. Each office and agency involved in developing the CAJR searched for this information in their data bases and the public literature; they were, however, unable to locate the requested information listed in Subpart D of this rule.

EPA has established a formal process whereby each office or agency that wants to add a substance to the CAIR must submit detailed nomination material to OTS (the nomination material for the substances in this final rule consist of memoranda to the public record with relevant support documents). The nomination must include: why the information is needed. how the nominating office will use the reported data, and any other pertinent information the Agency deems necessary. OTS will then determine whether the substance is a potential candidate for the CAIR.

Substances that pass OTS' initial screening will be submitted to an interagency, government-wide workgroup for review. As was done for the substances in this final rule, the workgroup (made up of representatives from program offices in EPA and other Federal agencies) reviews the list of substances and information requests. If needed information is available, the requesting office is notified and the substance withdrawn from the list of potential candidates for addition to the CAIR. Comments provided by the public on the chemical substance nominated in a proposed rule may also lead to the withdrawal of the substance or revised information requests.

B. Budgeting for Burden

EPA has prepared an information collection request that estimates the reporting burden that the CAIR would impose. The Paperwork Reduction Act requires EPA to collect information from the public in the least burdensome way and to summarize, for the Office of Management and Budget's (OMB) review, information collection activities and their associated burden. As part of this process, an Information Collection Budget (ICB) is developed that estimates the total number of burden hours the Agency will impose on the public during the next fiscal year.

CAIR is included in this budget process. In June of each year, each program office participating in CAIR will submit an ICB profile to the Information and Regulatory Systems Division (IRSD) in EPA's Office of Policy, Planning and Evaluation. This profile will contain the estimated number of substances on which the program expects to request data, the total burden hours associated with the request, and, if possible, the names of the substances involved. Based on this profile, each program office will have a CAIR line item on the ICB containing that office's total burden hours for CAIR requests. Making each EPA office accountable for the burden they impose

through the CAIR will ensure that they use the rule judiciously.

For the substances listed in this final rule, the OTS has budgeted for the burden hours for its substances along with the substances added by NIOSH. (OAR has accounted for its own substances.) In the future, each EPA office that adds a substance to the CAIR will account for the burden hours as described above while other agencies that add substances to CAIR will account for the burden hours in their own ICB.

Some commenters suggested that the CAIR will dramatically increase the government-wide reporting burden placed on industry each year and, in an effort to reduce this effect, EPA should not continue with the CAIR. EPA does not agree with these commenters' conclusions regarding the increased reporting burden. First, if EPA did not continue with the CAIR, the burden hours allocated for the rule would be available elsewhere in the Agency for use. Thus, there would be no net difference in the burden placed on industry by EPA if the CAIR is or is not promulgated. Second, the Agency has developed CAIR as an efficient information-gathering tool that should require less burden to comply with over time than separate rules gathering the same information. That is, more information can be collected at the same or less cost using the CAIR than using individual information-gathering rules.

C. Assistance for Submitters

Given the comprehensive nature of some questions in the CAIR reporting form, EPA is committed to providing technical assistance to companies reporting for the CAIR. Besides the instruction document that accompanies the reporting form, companies will be able to contact EPA or its contractor for assistance. An assistance office has been established to answer questions regarding the CAIR and will be staffed by a team of information specialists who are thoroughly familiar with the rule requirements and reporting form.

For the second iteration of CAIR, the Agency will compile and distribute a summary of "Questions and Answers" asked by submitters. The Agency has also developed a brochure that explains how the CAIR operates. Copies of this brochure are available from the TSCA Assistance Office.

D. Evaluation

To ensure that the CAIR meets its objectives of providing timely, reliable, useful, and non-duplicative data while imposing a minimum burden on

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industry, EPA has and will continue to evaluate the CAIR. The Agency has conducted a review of the final rule package to assure that there is adequate documentation to justify each information request.

The Agency has also reviewed the effectiveness of the nominating process in meeting the requirements of the Paperwork Reduction Act. Since the nomination process is standard for OTS, this review involved all OTS ICRS, including the CAIR. It is also the Agency's intention to evaluate the data submitted under the CAIR by reviewing forms for apparent inconsistencies and surveying submitters to determine problem areas.

Finally, a survey of data users both within EPA and at other agencies that nominated listed substances will be conducted. Interviews with a sample of users will be conducted to assure that the data submitted meet the needs of the user. A special report will be prepared that will examine any problem with timeliness of data receipt and determine if the levels of precision and specificity have been met.

VIII. Public Participation

EPA believes that the public review that occurred during the development of this rule was important. The Agency actively sought public input early in the developmental stages of the rule and met with all organizations requesting a meeting. Two general public meetings were held in July of 1985 to discuss an early draft of the rule and reporting ~ form. Constructive comments helped EPA refine the rule to make it more understandable and effective. After further revisions, the CAIR reporting form was circulated again for public review in December 1985. Again, more constructive comments were made and many were adopted.

EPA issued a notice on January 24. 1986 (51 FR 3251), asking for participation in a pretest of the reporting form. The purpose of the pretest was two-fold: (1) to test whether the questions are easily understood, and (2) to estimate the reporting burden associated with answering questions. The Agency had hoped many volunteers would participate. However, fewer applied than were expected. Therefore, the Agency does not view the results of this pretest as representative of the entire industry. The pretest did, however, provide extremely valuable "hands-on" data that were used in making changes to the form and for determining the economic impact of this

After publication of the proposed rule (51 FR 35762), EPA extended the public

comment period. The Agency appreciates all of the comments that have been made, and this final rule reflects EPA's consideration of those comments.

IX. Alternatives Considered

Before and during the development of the CAIR, the Agency considered three major alternative approaches for meeting its information-gathering objectives: (1) issuing chemical-specific TSCA section 8(a) rules, (2) issuing the CAIR list of questions as guidelines for incorporation in chemical-specific rules, and (3) developing a three-tier approach to reporting (of which parts of CAIR would comprise the first two tiers). After review of these approaches, the Agency decided to develop the CAIR as proposed.

Chemical-specific rules, unlike the CAIR, can be tailored to meet very specific needs. However, as discussed above, these rules are costly for EPA to establish and implement, and for industry to respond to. If specific information is needed that is beyond the scope of CAIR, the Agency always has the option of issuing a chemical-specific rule for that substance.

A variation of the chemical-specific option would be the issuance of the CAIR list of questions as guidelines. Whenever an information need arose, questions from the guidelines could be chosen and incorporated into a chemical-specific rule. An advantage of this option is that the guidelines could be modified as necessary without notice and comment.

The Agency has determined that such an option would be less desirable than issuance of a model rule because many of the efficiencies offered by a model rule would be diminished or lost. There would be a diminished incentive to use the questions exactly as they are written. The additional variability industry would face with such minor changes would impose substantial costs to industry in responding to each chemical-specific rule. Also, chemicalspecific rules would require substantial additional space in the Federal Register since the questions would have to be stated in full rather than simply specified by number under the CAIR.

Furthermore, there is no need to issue CAIR questions as guidelines. Many of the questions were taken from existing government forms previously used to collect information from industry. There has also been much cooperation with industry representatives in developing the form so that the questions will both provide the information needed to EPA and be in the terminology used by industry. EPA does not anticipate that a

major refinement of the questions will be necessary after promulgation of this final rule. Moreover, should the need arise, EPA can develop a TSCA section 8(a) chemical-specific rule with questions tailored to the unique characteristics of the requesters.

The last option that many commenters suggested was that EPA consider gathering information according to the stage of assessment of a substance. That is, for substances in the early stages of assessment, request only basic information like that found in the PAIR. If, following analysis of the reported data, the Agency finds that additional information is needed, a more detailed substance-specific rule would be used.

EPA does not believe a tiered reporting approach is necessary or appropriate; in fact, such a reporting scheme could be counterproductive since it could involve two or three separate complete rulemakings that would be costly to EPA in terms of Agency resources and delays in obtaining the needed information. Whereas a tiered reporting approach might be feasible if the CAIR was solely an OTS rule, the applicability of the CAIR to other program offices within EPA other than OTS, as well as to other Federal agencies, makes a tiered reporting approach impractical. The broad range of topics covered by the CAIR is one of the primary benefits derived from the rule. An office or agency can choose specific questions on the CAIR according to its particular stage of assessment.

X. Economic Analysis

A. Methodology

EPA has conducted in-depth studies to estimate the amount of secretarial, technical, and managerial time needed to respond to each question in the reporting form. These studies are located in the public record for this rulemaking.

The response times were derived from three major sources. One source was the set of Federal personnel experienced in preparing questionnaires that contained questions similar to those in the reporting form. Another source was Federal agency documents that described and analyzed questionnaires that contained questions similar to those in the reporting form. The last source was persons in private industry and industry research organizations who performed surveys with questionnaires similar to the CAIR form. These persons provided estimates of the time required to respond to certain parts of the reporting form. The Agency also used a

pretest of the CAIR form to determine the time required to complete various questions on the reporting form.

The question-specific reporting burden was estimated for each of three distinct labor categories: managerial, technical, and secretarial. Mean reporting times and variances were then calculated for each labor category. Applicable wage rates were then multiplied by the time estimates and the results were summed to establish the estimated reporting cost per question. Combining the cost per question for all the questions required of each type of respondent yielded both a mean reporting cost and a 90-percent confidence level cost range. This procedure was followed for each chemical substance listed in Subpart D. The mean reporting costs (i.e., unit costs) were further multiplied by the estimated number of respondents for each substance to determine the direct reporting cost of the rule.

EPA used the 1987 update of the TSCA Inventory data base as its primary source of plant sites that manufacture and/or import CAIR-listed substances. This provided the latest site counts for all CAÎR substances except chlorine. (Chlorine, an inorganic chemical, was not included in the Inventory update.) Additional data sources were consulted to establish site count estimates for chlorine and to double-check estimates for the remaining CAIR substances. The Agency reviewed the following sources. among others: Chemical Economics Handbook, Directory of Chemical Producers, Importers of Benzenoid Chemicals and Products, Synthetic Organic Chemicals, Chemical Products Synopsis, Million Dollar Directory, Market Identifiers, and the Census Bureau's Census of Manufacturers. Articles from recent trade magazines and journals, as well as contacts with a variety of industry personnel, were also used to identify plant sites.

To identify the plants that process the substances, data were collected on the downstream uses of each listed substance for which processor reporting is required. All those facilities that were strictly end users of listed substances were not considered to be processors for this rule.

The final step associated with developing the site estimates was to determine the number of "unique sites"; that is, those sites that must report. Since a site with multiple processes may be required to report for more than one substance, it is most important not to count that site more than once. Adjustments of site estimates were based on an examination of the specific

identities and chemical operations of expected submitters.

Once site estimates were established, estimating a per substance cost for each respondent type was then a simple matter. The estimated number of sites per respondent category was multiplied by the appropriate estimated reporting cost per substance. In turn, the reporting costs per substance were summed to provide the total direct reporting cost of the rule.

Reporting sites also incur a variety of indirect reporting costs. These involve such activities as familiarization with the rule and its reporting requirements. the establishment and maintenance of a recordkeeping system, notifying EPA and/or customers of any trade names, the cost of substantiating any information claimed to be confidential, and the miscellaneous costs associated with reviewing, copying, and mailing the completed CAIR reporting form. In each case, research was conducted to determine the appropriate unit cost (per report or per site) of each indirect cost category. (Two sets of unit costs were established in this analysis, one for a respondent answering a large number of questions and the other for a respondent answering a small number of questions.) After unit costs were multiplied by the appropriate number of sites and reports, the results were summed to produce the total indirect reporting cost of the rule.

The final step in determining the total cost of the rule was to estimate the cost incurred by firms that must assess whether they are required to report. Two steps were required to calculate this compliance determination cost. The first step was to identify the number of sites that are exempt from reporting requirements. The second step was to estimate the cost of making a compliance determination.

Those sites that do not manufacture, import, or process a listed substance are obviously not covered by the CAIR. The same is true of those sites that only use a CAIR substance. While keeping these points in mind, the list of CAIR substances was reviewed to determine the set of Standard Industrial Classification (SIC) codes likely to contain the sites subject to CAIR reporting or be exempt from reporting. The establishment counts in SIC 28, 29, 518, 2295, 2515, 3069, 3086, and 5198 were tallied, and the sum was then reduced by the number of sites listed as small businesses having annual sales under \$4 million. (These sites are also exempt from CAIR reporting requirements.) The adjusted sum was further reduced by the estimated number of sites that would report in the initial reporting

period. A total of 14,855 exempt sites was ultimately established.

The second step was to estimate the unit cost of compliance determination. A variety of industry and Agency sources were consulted to establish a range of time (required by labor category) needed to determine that reporting is not required. The time estimates were then multiplied by appropriate labor rates to provide a range of compliance determination costs. A unit cost of \$33 per site was selected from the range after it was determined to be most applicable. (It was necessary to allocate to the form familiarization cost category the compliance determination cost incurred by a site that must report under the CAIR. Since the review of reporting requirements that makes up a compliance determination is also a necessary part of form familiarization, this allocation was done to prevent double counting of costs.) The exempt site count was then multiplied by the unit cost of compliance determination to provide the final cost component of the CAIR.

Performing the set of calculations described above yields an estimated total cost for the 19 currently listed substances of \$2.3 million. These costs are broken down into direct reporting costs, indirect reporting costs, and compliance determination costs. The total direct reporting cost is estimated to be \$1.23 million. The total indirect reporting cost is estimated to be \$560,788. The total compliance determination cost is estimated to be \$490,215 for the 14,855 sites exempted from reporting requirements.

Based on the information collection requirements in this rule and the set of CAIR listed substances, the Agency calculated the expected costs of a typical responding site that would incur all possible costs. (Not all sites will incur such costs as CBI substantiation and trade name notification. Moreover, these expected costs are averages and may not actually match the cost of a specific site. Thus, the costs presented below will be somewhat different from those derived by dividing total line item costs by the number of responding sites or supplied reports.)

per report:

150 hours to gather and report the
requested information\$5,092
17 hours to substantiate CBI claims
8 hours to conduct trade name
notification\$360
11 hours to establish and file the
records that support a reporting
effort
1.5 hours to incur miscellaneous costs
(mailing, etc.)

per site:

43 hours for rule and form familiarization.....

...\$1,490

EPA assumes that the per site costs will be incurred one-time only for those respondents that submit two or more reports per site in any given reporting year. Only the per report costs will be incurred for each report submitted by a responding site. EPA further assumes that sites which must report in a following year will incur only a portion of the initial reporting year's per site costs. This is due to the expected increase in rule familiarization and understanding as the reports are prepared over a period of time. This may in fact not be entirely true in those cases in which a respondent must answer a small number of questions and, as a result, may not learn the entire reporting

B. EPA Administrative Costs

EPA will incur a variety of costs to process and maintain the information provided under the CAIR. This section briefly describes the costs associated with the Agency's administration of this rule.

EPA has developed a system to process and maintain the CAIR information. The major tasks in this overall effort are performing a feasibility study, and developing a data entry system, data base system, and tracking system. The initial system design and development costs are estimated to be \$445,000. There will be an additional cost of \$65,000 for the development of standardized reports for CAIR data users.

EPA also expects to incur costs associated with entering and processing data for the initial 19 chemicals, administrating the CAIR information office, and several other projects. These activities are estimated to cost \$444,000.

In addition to the costs shown above, EPA will incur staff costs for these rule-related activities. Approximately 5.4 full-time equivalents (FTEs) will be required in the implementation of the initial CAIR. At \$32,000 per FTE, the total of 5.4 FTEs will cost EPA \$172,800.

Thus, it is assumed that EPA's expenditures for the development and implementation of this final rule will be roughly \$954,750 plus a total of \$172,800 in staff costs. This yields a total cost to EPA of \$1,127,550.

C. Response to Comments on Economic Analysis

A variety of comments were received on the proposed CAIR. Among these comments were a set that specifically addressed cost estimates. In general, these comments all argued that EPA's cost estimate was considerably below the cost industry officials believed would be incurred. Listed below are the major comments addressing economic issues and the EPA response. More detailed responses can be found in the rulemaking record.

A number of commenters stated that the unit labor rates EPA used were far below the levels found in industry today. It was argued that hourly wages were too low and that labor overhead should also be included in cost estimates. It was also argued that the use of only three labor categories (managerial, technical, and clerical) tended to bias downward the cumulative cost of the work performed by all the different types of personnel involved in filling out the CAIR reporting form.

The Agency agrees with these general comments and has taken two major steps to address the concerns. First, EPA factored inflation levels since March 1984 into the set of wage rates used to cost out the proposed CAIR. The unit labor costs were based on March 1984 data and, therefore, needed to be updated. Second, the Agency realized that industry responses to government health and environmental reporting requirements tend to be prepared by senior level personnel from a variety of backgrounds (financial, legal, and operational). Thus, the Agency used different and more senior labor cost categories from Bureau of Labor Statistics data in establishing the new unit labor rates for the economic analysis. These two major adjustments resulted in hourly wage rate increases of 27.3, 35.3, and 11.2 percent for managerial, technical, and clerical personnel, respectively.

The Agency does not agree that labor overhead should be factored into the cost estimates. The allocation of any overhead expenses to CAIR reporting activities is an arbitrary exercise. This is especially true because the indirect reporting costs that might be classified as overhead are addressed as separate line items in the cost estimates prepared for the final rule. As an illustration, the indirect reporting costs associated with the establishment of a support document recordkeeping system are now shown as a distinct line item in the economic analysis.

Other commenters argued that EPA underestimated the total number of chemical processors that might be subject to reporting requirements, and thereby further underestimated the possible total cost of the rule. As an illustration, it was argued that the count used by EPA for the number of ammonia

processors and solvent processors was too low. Commenters also argued that EPA's site counts for non-sample substances were low in some cases.

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The Agency agrees with these comments in general. The Agency chose a group of sample substances to be representative, in terms of manufacturing operations, of the set of substances currently listed on the CAIR. The Agency conducted a comparison of the sample and non-sample substances and determined that the samples are representative of the total set in terms of chemical type, annual production volume, and the number of manufacturing sites.

The analysis prepared for the proposed CAIR estimated a total of roughly 298,000 processing sites for the 15 sample substances. Follow-up work using additional primary and secondary data sources resulted in an increase in the count of processing sites to roughly 308,700 sites. With respect to the site counts for the non-sample substances, these estimates were derived from the data collected on the sample substances. Thus, they were only to be representative, not specific. The adjustments made to the site counts for the sample substances should result in more accurate site counts for nonsample substances.

Some commenters believed that EPA underestimated the time and effort required to complete the CAIR reporting form. They argued that far more time would be required to collect data from scattered sources, to coordinate form analysis and response efforts between different personnel, and to actually develop responses to various questions on the form. With respect to this last issue, commenters argued that EPA failed to account for the additional reporting burden incurred by firms that do multiple processing of CAIR substances, have multiple work areas, or have multiple emission points. It was also argued that these firms would ostensibly be required to provide multiple responses to various questions on the reporting form.

The Agency agrees with these points. As a result, additional cost line items were added to account for the activities that had not been considered in the proposed rule's economic analysis. The new cost line items are compliance determination, review and mailing of the final reporting form, collection and calculation of data required by CAIR form questions, and several other miscellaneous costs associated with form preparation. In addition, revisions were made to the estimated costs for CBI substantiation, form familiarization.

recordkeeping, and trade name notification. The result of these changes, plus the revised site counts and unit labor rates mentioned above, was an increase in the estimated total cost from \$3.27 million to roughly \$23.9 million. However, this cost was then reduced significantly by factoring in the exemptions used in the final rule and by the change in the number of substances on the rule from 47 for the proposed rule to 19 for this final rule.

XI. Rulemaking Record

The following documents constitute the major documents in the record for this rule (docket control number OPTS-82013C). All documents, including the index to the complete record, are available to the public in the TSCA Public Docket Office from 8 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The TSCA Public Docket Office is located at EPA Headquarters, Rm. NE-G004, 401 M Street, SW., Washington, DC 20460. The record includes but is not limited to the following information:

- 1. Federal Register Notices: (April 4, 1985; 50 FR 13391), (June 17, 1985; 50 FR 25095), (January 24, 1986; 51 FR 3251), (February 28, 1986; 51 FR 7120), and (December 19, 1988; 51 FR 45486).
- 2. Transcript of public meeting held on July 17, 1985.
- 3. Transcript of public meeting held on July 30, 1985.
- 4. Minutes of meetings held with the Chemical Manufacturers Association, the Synthetic Organic Chemical Manufacturers Association, and the American Petroleum Institute.
- 5. Copy of memorandum and CAIR reporting form circulated to the public for review on December 9, 1985.

- 6. CAIR reporting form response times and labor costs analysis, Centaur Associates, April 21, 1986.
 - 7. Economic analysis of the CAIR.
- 8. Comments received on earlier drafts of the CAIR preamble and reporting form.
- 9. Background information on substances appearing in the proposed and final rule.
- 10. Proposed Rule October 7, 1986; 51 FR 35762.
- 11. Comments received on the proposed rule.
- 12. CAIR Pretest Summary Report, Science Applications International Corporation, March 20, 1987.
- 13. Correspondence with and from the public regarding CAIR.
- 14. Minutes of meeting held with industry, environmental, and labor organizations on February 26, 1986.
- 15. Minutes of meeting with representatives from the Chemical Manufacturers Association, the Office of Management and Budget, and the Environmental Protection Agency held on August 6, 1987.
- Response to Comment document.
 Final CAIR Reporting Form and Instructions.

XII. REGULATORY ASSESSMENT REQUIREMENTS

A. Executive Order 12291

Under Executive Order 12201, EPA must judge whether a rule is "major" and therefore requires a Regulatory Impact Analysis. The Agency has determined that this final rule is not "major" because it does not have an effect of \$100 million or more on the economy. EPA also anticipates that this rule will not have a significant effect on competition, costs, or prices. This rule was submitted to the OMB for review as required by Executive Order 12291.

B. Regulatory Flexibility Act

Under the Regulatory Flexibility Act, 5 U.S.C. 605(b), EPA certifies that this rule will not have a significant impact on a substantial number of small businesses. Small businesses are defined in this rule and are exempt from reporting except under certain circumstances defined in TSCA.

C. Paperwork Reduction Act

The information collection requirements in this rule were submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 et seq. and have been assigned OMB control number 2010–0019.

Public reporting burden for this collection of information is estimated to vary as presented in the following chart. These estimates include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. To locate a respondent's burden estimate on the chart, identify the substance's CAS number and the respondent category for which the report is being submitted, and locate the corresponding range. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

CAIR REPORTING BURDEN FOR BOTH QUESTION-SPECIFIC AND GENERAL COSTS (RANGE IN HOURS)

					-	
Chemical name	CAS No.	Manufacturer	Importer	Processor	fanufacturer / processor	Importer/ processor
Hydrazinecarboxamide Acetamide Ethane, 1,1,2,2-tetrabromo- Phenanthrene Benzene, 1,3-diisocyanato-2-methyl- 2-Naphthalenesulfonic acid, 6-amino- Benzeneamine, 4,4'-methylenebis[2-chloro- Ethanol, 2-chloro-, phosphate (3:1) Pyrene Hydrazinecarboxamide, monohydrochloride Benzene, 2,4-diisocyanato-1-methyl- Disulfide, dimethyl Benzene, diisocyanatometnyi- Hydroxylamine, hydrochloride Chlorine Hydroxylamine Hydroxylamine, sulfate (2:1) Hydroxylamine, sulfate (1:1)	60-35-5	45-57 37-41 40-47 194-231 44-54 NA 40-47 40-47 39-47 194-231 40-47 196-233 37-42 55-79 37-42 37-42	39-47 45-57 37-41 40-46 98-114 44-54 NA 40-46 39-47 98-114 40-46 100-116 38-43 NA 38-43 38-43	41-49 NA 37-41 40-48 268-316 NA 47-60 NA 268-316 NA 270-320 38-43 NA 38-43	44-56 61-79 37-42 44-54 403-466 55-72 55-72 44-54 44-56 403-466 44-54 407-471 39-44 91-128 39-44	41-50 51-65 37-41 41-49 266-315 48-61 47-60 41-49 41-50 266-315 41-49 269-318 38-43 NA 38-43 38-43
	1	37-42	38-43	38-43	39-44	38-43

CAIR REPORTING BURDEN FOR BOTH QUESTION-SPECIFIC AND GENERAL COSTS (RANGE IN HOURS)-Continued

Chemical name	CAS No.	Manufacturer	Importer	Processor	Manufacturer / processor	Importer/ processor
Benzene, 1,3-diisocyanatomethyl-	26471-62-5	196-233	100-116	270-320	407–471.	269-318

List of Subjects in 40 CFR Fart 704

Chemicals, Environmental protection. Hazardous materials, Reporting and recordkeeping requirements.

Dated: October 27, 1988. Lee M. Thomas,

Administrator.

Therefore, 40 CFR Part 704 is amended as follows:

1. The authority citation for Part 704 continues to read as follows:

Authority: 15 U.S.C. 2607(a)

PART 704—REPORTING AND RECORDKEEPING REQUIREMENTS

2. By revising the Part heading to read as set forth above.

Subpart A—General Reporting and Recordkeeping Provisions for Section 8(a) Information-Gathering Rules

- 3. By revising the Subpart A heading to read as set forth above.
- 4. By revising §§ 704.1, 704.3, and 704.5 to read as follows:

§ 704.1 Scope.

(a) This Part specifies reporting and recordkeeping procedures under section 8(a) of the Toxic Substances Control Act (TSCA) for manufacturers, importers, and processors of chemical substances and mixtures (hereafter collectively referred to as substances) that are identified in Subpart B or D of this Part. The reporting and recordkeeping provisions in Subpart A of this Part apply throughout this Part unless revised in any other subpart.

(b) Subpart B of this Part sets out chemical-specific reporting and recordkeeping requirements under

section 8(a) of TSCA.

(c) Subpart C of this Part sets out the general reporting provisions for the Comprehensive Assessment Information Rule (CAIR). CAIR standardizes certain section 8(a) rules by: providing a set of uniform questions for EPA and other agencies to use in assembling specific reporting requirements; requiring the submission of information on a standard reporting form; and establishing uniform reporting and recordkeeping provisions that supplement the reporting and recordkeeping provisions in Subpart A of this Part. CAIR provisions apply only to those persons who manufacture,

import, or process a substance identified in Subpart D of this Part during the time period for which reporting is required.

(d) Subpart D of this Part contains a matrix that identifies the substances for which EPA requires reporting under Subpart C, the persons who must report the information to EPA, the information that must be reported, the coverage period (as that term is defined in § 704.203), and the effective date of the final rule.

§ 704.3 Definitions.

All definitions as set forth in section 3 of TSCA apply in this Part. In addition, the following definitions are provided for the purposes of this Part.

"Annual" means the corporate fiscal

year.

"Article" means a manufactured item (1) which is formed to a specific shape or design during manufacture, (2) which has end use function(s) dependent in whole or in part upon its shape or design during end use, and (3) which has either no change of chemical composition during its end use or only those changes of composition which have no commercial purpose separate from that of the article, and that result from a chemical reaction that occurs upon end use of other chemical substances. mixtures, or articles; except that fluids and particles are not considered articles regardless of shape or design.

"Byproduct" means a chemical substance produced without a separate commercial intent during the manufacture, processing, use, or disposal of another chemical substance(s) or mixture(s).

"CAS Number" means Chemical Abstracts Service Registry Number.

"Coproduct" means a chemical substance produced for a commercial purpose during the manufacture, processing, use, or disposal of another chemical substance or mixture.

"Customer" means any person to whom a manufacturer, importer, or processor directly distributes any quantity of a chemical substance, mixture, mixture containing the substance or mixture, or article containing the substance or mixture, whether or not a sale is involved.

"Domestic" means within the geographical boundaries of the 50 United States, including the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, and any other territory or possession of the United States.

"Enclosed process" means a manufacturing or processing operation that is designed and operated so that there is no intentional release into the environment of any substance present in the operation. An operation with fugitive, inadvertent, or emergency pressure relief releases remains an enclosed process so long as measures are taken to prevent worker exposure to and environmental contamination from the releases.

"EPA" means the United States Environmental Protection Agency.

"Import" means to import for commercial purposes.

"Import for commercial purposes" means to import with the purpose of obtaining an immediate or eventual commercial advantage for the importer, and includes the importation of any amount of a chemical substance or mixture. If a chemical substance or mixture containing impurities is imported for commercial purposes, then those impurities also are imported for commercial purposes.

"Import in bulk form" means to import a chemical substance (other than as part of a mixture or article) in any quantity. in cans, bottles, drums, barrels, packages, tanks, bags, or other containers, if the chemical substance is intended to be removed from the container and the substance has an end use or commercial purpose separate from the container.

"Importer" means (1) any person who imports any chemical substance or any chemical substance as part of a mixture or article into the customs territory of the United States, and includes:

- (i) The person primarily liable for the payment of any duties on the merchandise, or
- (ii) An authorized agent acting on his behalf (as defined in 19 CFR 1.11).
- (2) Importer also includes, as appropriate:
 - (i) The consignee.
 - (ii) The importer of record.
- (iii) The actual owner if an actual owner's declaration and superseding bond have been filed in accordance with 19 CFR 141.20.

(iv) The transferee, if the right to draw merchandise in a bonded warehouse has been transferred in accordance with Subpart C of 19 CFR Part 144.

(3) For the purposes of this definition, the customs territory of the United States consists of the 50 States, Puerto Rico, and the District of Columbia.

"Impurity" means a chemical substance which is unintentionally present with another chemical substance.

'Intermediate'' means any chemical substance that is consumed, in whole or in part, in chemical reactions used for the intentional manufacture of other chemical substances or mixtures, or that is intentionally present for the purpose of altering the rates of such chemical reactions.

"Known to or reasonably ascertainable by" means all information in a person's possession or control, plus all information that a reasonable person similarly situated might be expected to possess, control, or know.

"Manufacture" means to manufacture

for commercial purposes.

'Manufacture for commercial purposes" means: (1) To import, produce, or manufacture with the purpose of obtaining an immediate or eventual commercial advantage for the manufacturer, and includes among other things, such "manufacture" of any amount of a chemical substance or mixture:

i) For commercial distribution, including for test marketing.

(ii) For use by the manufacturer, including use for product research and development, or as an intermediate.

(2) Manufacture for commercial purposes also applies to substances that are produced coincidentally during the manufacture, processing, use, or disposal of another substance or mixture, including both byproducts that are separated from that other substance or mixture and impurities that remain in that substance or mixture. Such byproducts and impurities may, or may not, in themselves have commercial value. They are nonetheless produced for the purpose of obtaining a commercial advantage since they are part of the manufacture of a chemical product for a commercial purpose.

'Manufacturer'' means a person who imports, produces, or manufactures a chemical substance. A person who extracts a component chemical substance from a previously existing chemical substance or a complex combination of substances is a manufacturer of that component chemical substance.

'Non-isolated intermediate" means any intermediate that is not

intentionally removed from the equipment in which it is manufactured, including the reaction vessel in which it is manufactured, equipment which is ancillary to the reaction vessel, and any equipment through which the substance passes during a continuous flow process, but not including tanks or other vessels in which the substance is stored after its manufacture. Mechanical or gravity transfer through a closed system is not considered to be intentional removal, but storage or transfer to shipping containers "isolates" the substance by removing it from process equipment in which it is manufactured.

"Own or control" means ownership of 50 percent or more of a company's voting stock or other equity rights, or the power to control the management and policies of that company. A company may own or control one or more sites. A company may be owned or controlled by a foreign or domestic parent company.

"Parent company" is a company that owns or controls another company

"Person" includes any individual. firm, company, corporation, joint venture, partnership, sole proprietorship, association, or any other business entity; any State or political subdivision thereof; any municipality; any interstate body; and any department, agency, or instrumentality of the Federal Government.

"Possession or control" means in the possession or control of any person, or of any subsidiary, partnership in which the person is a general partner, parent company, or any company or partnership which the parent company owns or controls, if the subsidiary, parent company, or other company or partnership is associated with the person in the research, development, test marketing, or commercial marketing of the substance in question. Information is in the possession or control of a person if it is:

(1) In the person's own files including files maintained by employees of the person in the course of their employment.

(2) In commercially available data bases to which the person has purchased access.

(3) Maintained in the files in the course of employment by other agents of the person who are associated with research, development, test marketing, or commercial marketing of the chemical substance in question.

"Process" means to process for commercial purposes.

"Process for commercial purposes" means the preparation of a chemical substance or mixture after its manufacture for distribution in

commerce with the purpose of obtaining an immediate or eventual commercial advantage for the processor. Processing of any amount of a chemical substance or mixture is included in this definition. If a chemical substance or mixture containing impurities is processed for commercial purposes, then the impurities also are processed for commercial purposes.

"Processor" means any person who processes a chemical substance or

mixture.

"Production volume" means the quantity of a substance which is produced by a manufacturer, as measured in kilograms or pounds.

"Propose to manufacture, import, or process" means that a person has made a firm management decision to commit financial resources for the manufacture, import, or processing of a specified chemical substance or mixture.

"Site" means a contiguous property unit. Property divided only by a public right-of-way shall be considered one site. There may be more than one plant on a single site. The site for a person who imports a substance is the site of the operating unit within the person's organization which is directly responsible for importing the substance and which controls the import transaction and may in some cases be the organization's headquarters office in the United States.

"Small manufacturer or importer" means a manufacturer or importer that meets either of the following standards:

(1) First standard. A manufacturer or importer of a substance is small if its total annual sales, when combined with those of its parent company (if any), are less than \$40 million. However, if the annual production or importation volume of a particular substance at any individual site owned or controlled by the manufacturer or importer is greater than 45,400 kilograms (100,000 pounds), the manufacturer or importer shall not qualify as small for purposes of reporting on the production or importation of that substance at that site, unless the manufacturer or importer qualifies as small under standard (2) of this definition.

(2) Second standard. A manufacturer or importer of a substance is small if its total annual sales, when combined with those of its parent company (if any), are less than \$4 million, regardless of the quantity of substances produced or imported by that manufacturer or importer.

(3) Inflation index. EPA shall make use of the Producer Price Index for Chemicals and Allied Products, as compiled by the U.S. Bureau of Labor Statis the ne value value may a

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cł C \mathbf{n} SI p n е C ŗ Statistics, for purposes of determining the need to adjust the total annual sales values and for determining new sales values when adjustments are made. EPA may adjust the total annual sales values whenever the Agency deems it necessary to do so, provided that the Producer Price Index for Chemicals and Allied Products has changed more than 20 percent since either the most recent previous change in sales values or the date of promulgation of this rule. whichever is later. EPA shall provide Federal Register notification when changing the total annual sales values.

"Small quantities solely for research and development" (or "small quantities solely for purposes of scientific experimentation or analysis or chemical research on, or analysis of, such substance or another substance, including such research or analysis for the development of a product") means quantities of a chemical substance manufactured, imported, or processed or proposed to be manufactured, imported, or processed solely for research and development that are not greater than reasonably necessary for such purposes.

"Substance" means either a chemical substance or mixture unless otherwise indicated.

"Test marketing" means the distribution in commerce of no more than a predetermined amount of a chemical substance, mixture, article containing that chemical substance or mixture, or a mixture containing that substance, by a manufacturer or processor, to no more than a defined number of potential customers to explore market capability in a competitive situation during a predetermined testing period prior to the broader distribution of that chemical substance, mixture, or article in commerce.

"Total annual sales" means the total annual revenue (in dollars) generated by the sale of all products of a company. Total annual sales must include the total annual sales revenue of all sites owned or controlled by that company and the total annual sales revenue of that company's subsidiaries and foreign or domestic parent company, if any.

"TSCA" means the Toxic Substances Control Act, 15 U.S.C. 2601 et seq.

§ 704.5 Exemptions.

A person who is subject to reporting requirements for a substance identified in this Part is exempt from those requirements to the extent that the person and that person's use of the substance is described in this section. This section is superseded by any TSCA section 8(a) rule that adds to, removes,

or revises the exemptions described in this section.

- (a) Articles. A person who imports. processes, or proposes to import or process a substance identified in this Part solely as part of an article is exempt from the reporting requirements of this Part with regard to that substance.
- (b) Byproducts. A person who manufactures, imports, or proposes to manufacture or import a substance identified in this Part solely as a byproduct is exempt from the reporting requirements of this Part.
- (c) Impurities. A person who manufactures, imports, processes, or proposes to manufacture, import, or process a substance identified in this Part solely as an impurity is exempt from the reporting requirements of this Part.
- (d) Non-isolated intermediate. A person who manufactures or proposes to manufacture a substance identified in this Part solely as a non-isolated intermediate is exempt from the reporting requirements of this Part.
- (e) Research and development. A person who manufactures, imports, processes, or proposes to manufacture, import, or process a substance identified in this Part only in small quantities solely for research and development is exempt from the reporting requirements of this Part.
- (f) Small manufacturers and importers. Small manufacturers and importers are exempt from the reporting requirements of this Part.
- 5. By revising the section heading for § 704.7 to read as follows:

§ 704.7 Confidential business information claims.

6. By adding §§ 704.9, 704.11, and 704.13 to read as follows:

§ 704.9 Where to send reports.

Reports must be submitted by certified mail to: TSCA Document Processing Center (TS-790), Office of Toxic Substances, U.S. Environmental Protection Agency, Room L-100, 401 M St., SW., Washington, DC 20460. ATTENTION: 8(a) Reporting.

§ 704.11 Recordkeeping.

Each person who is subject to the reporting requirements of this Part must retain the following records for 3 years following the creation or compilation of the record.

(a) A copy of each report submitted by the person in response to the requirements of this Part.

- (b) Materials and documentation sufficient to verify or reconstruct the values submitted in the report.
- (c) A copy of each notice sent by the person, return receipt requested, to that person's customers for the purpose of notifying their customers of the customer's reporting obligations under this Part.
- (d) All return receipts signed by the person's customers who received the notice described in paragraph (c) of this

(Approved by the Office of Management and Budget under OMB control number 2010-

§ 704.13 Compliance and enforcement.

Violators of the requirements of this Part may be subject to civil administrative penalties up to \$25,000 per day of violation or criminal prosecution, as provided in sections 15 and 16 of TSCA. In addition, under section 17, EPA may seek judicial relief to compel submission of required information.

7. By amending Subpart B as follows:

Subpart B-Chemical-Specific Reporting and Recordkeeping Rules

a. By revising the heading for Subpart B to read as set forth above.

§§ 704.83, 704.85, and 704.142 Redesignated as §§ 704.43, 704.45 and 704.1021.

b. By redesignating existing §§ 704.83, 704.85, and 704.142 under Subpart B as §§ 704.43, 704.45, and 704.102 respectively.

§§ 704.195 and 704.205 [Removed].

- c. By removing §§ 704.195 and 704.205.
- 8. By adding Subpart C to read as follows:

Subpart C-CAIR: Comprehensive Assessment Information Rule General Reporting and Recordkeeping **Provisions**

704.200 Overview of CAIR provisions-Subparts C and D.

704.203 Definitions.

Limitations on reporting 704.205 requirements.

Persons who must report. 704.206

Information to be reported. 704.207 704.208

Distribution of substances under a trade name.

704.210 Exemptions.

Questions selected. 704.212

704.214 Coverage period.

Reporting period. 704.215

704.216 How to obtain a CAIR reporting

704.217 How to submit completed CAIR reporting forms.

704.219 Confidential business information claims.

§ 704.200 Overview of CAIR provisions— Subparts C and D.

Although the provisions in Subpart A of this Part apply to all of Part 704, EPA may in Subpart C and D of this Part modify the Subpart A provisions of this Part for the purposes of requiring reporting and recordkeeping provisions on specified substances. In the event of a conflict between the provisions of Subparts A and C of this Part, the provisions of Subpart C of this Part shall govern. Subpart C of this Part explains the reporting and recordkeeping provisions for persons who manufacture, import, or process the substances identified in Subpart D of this Part. Subpart D of this Part identifies: the substances for which EPA requires the reporting of information under CAIR; the persons who are required to submit the information; the questions from the CAIR reporting form that must be answered; the time period on which to report; and the effective date of the final rule. The text of Subpart D of this Part is set out in a matrix format and uses symbols to identify some reporting requirements. These symbols are explained in § 704.206. In addition to the matrix, Subpart D also identifies when all reporting forms must be submitted.

§ 704.203 Definitions.

All definitions as set forth in section 3 of TSCA and § 704.3 apply in this Subpart. In addition, the following definitions are provided for the purposes of this Subpart.

"Coverage period" means a time-span which is 1 day less than 2 years, as identified in Subpart D, and is the time-span which a person uses to determine his/her reporting year. Subject manufacturing or processing activities may or may not have occurred during the coverage period.

"Manufacturing activities" means all those activities at one site which are necessary to produce a substance identified in Subpart D of this Part and make it ready for sale or use as the listed substance, including purifying or importing the substance.

"Processing activities" means all those activities which include (1) preparation of a substance identified in Subpart D of this Part after its manufacture to make another substance for sale or use, (2) repackaging of the identified substance, or (3) purchasing and preparing the identified substance for use or distribution in commerce.

"Repackager" means a person who buys a substance identified in Subpart D of this Part or mixture, removes the substance or mixture from the container in which it was bought, and transfers this substance, as is, to another container for sale.

"Reporting Period" means the time period during which CAIR reporting forms are to be submitted to EPA.

"Reporting Year" means the most recent complete corporate fiscal year during which a person manufactures, imports, or processes the listed substance, and which falls within a coverage period identified with a substance in Subpart D of this Part.

"Small processor" means a processor that meets either of the following standards:

- (1) First Standard. A processor of a substance is small if its total annual sales, when combined with those of its parent company (if any), are less than \$40 million. However, if the annual processing volume of a particular substance at any individual site owned or controlled by the processor is greater than 45,400 kilograms (100,000 pounds), the processor shall not qualify as small for purposes of reporting on that substance at that site, unless the processor qualifies as small under standard (2) of this definition.
- (2) Second standard. A processor of a substance is small if its total annual sales, when combined with those of its parent company (if any), are less than \$4 million, regardless of the quantity of substances processed by that processor.
- (3) Inflation index. EPA shall make use of the Producer Price Index for Chemicals and Allied Products, as compiled by the U.S. Bureau of Labor Statistics, for purposes of determining the need to adjust the total annual sales values and for determining new sales when adjustments are made. EPA may adjust the total annual sales values whenever the Agency deems it necessary to do so, provided that the Producer Price Index for Chemicals and Allied Products has changed more than 20 percent since either the most recent previous change in sales values or the date of promulgation of this rule, whichever is later. EPA shall provide Federal Register notification when changing the total annual sales values.

§ 704.205 Limitations on reporting requirements.

The following limitations apply to the reporting and recordkeeping requirements of Subpart D of this Part.

(a) Report on TSCA-regulable quantities. A person must report on only the quantity of a substance that is

defined as a chemical substance under TSCA section 3(2).

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(b) Chemical substances from natural sources. A manufacturer of a chemical substance which is mined or extracted from minerals, ores, petroleum, natural gas, quarried nonmetallic minerals (including extraction of salts from seawater or brines), coal, or atmospheric gases, or from any other natural source, must report only about the manufacturing steps taken, and the uses of, that substance, and not about production of the natural source material or other crude precursors derived from the natural source material.

§ 704.206 Persons who must report.

- (a) General requirements.

 Manufacturers, importers, and processors must report on each substance identified in Subpart D of this Part if: they are designated in Subpart D as a person who must report on the substance, they manufactured, imported, or processed the substance during the coverage period designated in Subpart D for which reporting on that substance is required, and they are not otherwise exempt.
- (b) Symbols for designating persons who must report. EPA will designate who must report on each substance identified in Subpart D of this Part by using the following symbols:
- (1) "M" means each person who manufactured the substance for commercial purposes.
- (2) "I" means each person who imported the substance for commercial purposes.
- (3) "P" means each person who processed the substance for commercial purposes.
- (4) "X/P" means each person who manufactured, imported, or processed the substance for commercial purposes and distributed the substance under a trade name.
- (c) Special provision for importers. When two or more persons are involved in a particular import transaction of a substance identified in Subpart D of this Part, and two or more of these persons meet the definition of "importer" for this transaction, they may determine among themselves who should comply with the CAIR reporting and recordkeeping requirements for the substance and have that person list the names of the other importers who were involved in the transaction. If none of the persons involved comply with the CAIR reporting and recordkeeping requirements for that substance, then EPA will hold each of these persons liable for their failure to comply.

(d) Dual designations. If a person is engaged in more than one activity (e.g., manufacturing and processing) at the same site for a substance identified in Subpart D of this Part and both activities are listed, then that person must comply with the reporting requirements for both activities.

§ 704.207 Information to be reported.

(a) The CAIR reporting form is comprised of 10 sections. Each section contains specific questions which pertain to the subject matter found in that particular section. There is a set of instructions which accompanies the CAIR reporting form. The instructions consist of: specific directions and sample answers relating to certain form questions based on two reporting scenarios, conversion tables, and a glossary which defines key terms. The following is a description of the information contained in each section of the CAIR reporting form.

(1) Section 1: General Manufacturer, Importer, and Processor Information.

Respondent Identification Reporting Status Certification Statements Corporate Data Mixture Identification

Customer Use

(2) Section 2: Manufacturer, Importer, and Processor Volume, and Use.

Respondent Activities
Quantity Manufactured, Imported, and
Processed
Quantity Exported
Quantity Stored on-site
Product Types
Transportation off-site

(3) Section 3: Processor Raw Material Identification.

Quantity Used and Price of Listed Substance Transportation to Site Listed Substance in the Form of a Mixture

(4) Section 4: Physical/Chemical Properties.

Purity of Listed Substance
MSDS Exists/Submitted
Physical State of Listed Substance
Particle Size of Listed Substance
Fire, Explosion, and Other Hazard Data
Shipment Restrictions

(5) Section 5: Environmental Fate.
Rate Constants and Transformation
Products

Partition Coefficients

(6) Section 6: Economic and Financial Information.

Company Type Product Types/Product Markets Commercially Available Substitutes Production Costs **Product Sales**

 (7) Section 7: Manufacture and Process Information.
 Process Block Flow Diagrams Unit Operation Equipment Types
 Process Stream Description and Characterization

(8) Section 3: Residual Treatment, Generation, Characterization, Transportation, and Management. Residual Treatment Block Flow Diagrams

Unit Operation Equipment Types
Process Stream Description and
Characterization

Residual Management Methods Residual Handling Instructions/ Restrictions

Storage or Treatment in Tanks and Waste Piles

Storage, Treatment, or Disposal in Containers

Residual Handling

Burning in Boilers and Incinerators
Storage, Treatment, or Disposal in Land
Treatment Sites and Surface
Impoundments

Disposal in Landfill Cells and Injection Wells

(9) Section 9: Worker Exposure.
Employment and Potential Exposure
Profile

Records Maintained for Workers Job Titles by Labor Category Exposure Characterization Process Block Flow Diagram with Associated Work Areas

Description of Work Areas and Worker Activities

Work Place Monitoring Programs
Personal/Ambient Air Monitoring
Medical, Monitoring Tests
Engineering Controls
Equipment/Process Modifications
Personal Protective Clothing and Safety
Equipment

Respirator Maintenance Activity and Training Programs Work Practices

Housekeeping Tasks Medical, Leak, Spill, Worker Safety, and Health Plans

(10) Section 10: Environmental Release.

Release.

Plant Location
Meteorological Conditions
Groundwater Below Plant Site
Routine Releases
Quantity of Listed Substance Released
Control Technologies
Point Source Emissions
Emission Characteristics
Equipment Leaks and Detection
Pressure Relief Devices with Controls
Raw Material, Intermediate, and Product
Storage Emissions
NPDES, POTW, and Non-point
Discharges

Releases to Soils, Groundwater, and Drinking Water Spills and Other Non-routine Releases

Spills and Other Non-routine Releases Weather Conditions, Date and Time of Release

Method of Release and Quantity Released

Cause and Result of Release Authorities and Population Notified Personal Injuries and Casualties Release Prevention Practices Repairs and/or Preventative Measures

(b) [Reserved]

§ 704.208 Distribution of substances under a trade name.

(a) The X/P designation requires each person who manufactured, imported, or processed a substance identified in Subpart D of this Part for commercial purposes and who distributed the substance under a trade name to do one of the following.

(1) Trade name list. Submit to EPA a list of all trade names under which the person distributes the substance. Submissions must have a postmark date no later than 1 day after the effective date of the final rule listing the substance in Subpart D of this Part. Trade name lists must be submitted by certified mail to: TSCA Document Processing Center (TS-790), Office of Toxic Substances, Environmental Protection Agency, Room L-100, 401 M St., SW., Washington, DC 20460, ATTENTION: CAIR Trade Name List. Include the date of the Federal Register notice you are subject to, the substance name, CAS number, trade name(s) associated with that substance, the company's name, address and telephone number, and the address and telephone number of a technical contact. EPA will issue all submitted trade names in a Federal Register notice in order to notify all processors of these trade name substances of their CAIR reporting and recordkeeping obligations.

(2) Customer reporting. Submit to EPA a CAIR reporting form that answers the processor's reporting requirements for each customer who would be required to report if the customer knew it was processing the listed substance. Persons may only choose to report for their customers if such persons can supply all of the information requested. Persons reporting on their customers' activities are liable for information reported incorrectly just as they are for reporting incorrectly on their own activities. Reporting is due no later than 90 days after the effective date of the final rule listing the substance in Subpart D of this

(3) Customer notification. Notify each customer who would be required to

report if the customer knew they were processing the listed substance, of the specific section in Subpart D of this Part which identifies the substance and the processor reporting requirements. The customer notification must be sent by certified mail, return receipt requested. within 30 days of the effective date of the final rule that added the substance to Subpart D of this Part. The notification must specify which questions from the form must be answered, on which trade name substances, when the reports are due. the citation and date of the final rule that added the substance to Subpart D. and where to send the reports. Customers must report within the time period indicated in § 704.223(b).

(b) Notification extensions. Any person who chooses to notify their customers of their reporting obligations, but cannot meet the notification deadline, may apply for a reasonable extension of time. Requests for extensions must be made in writing, contain a justification for such a request, and be addressed to: TSCA Document Processing Center (TS-790), Office of Toxic Substances, U.S. Environmental Protection Agency, Room L-100, 401 M St., SW., Washington, DC 20460, ATTENTION: CAIR customer notification extension. Extension requests must be postmarked no later than 5 days before the notification deadline.

(c) [Reserved]

§ 704.210 Exemptions.

The reporting exemptions set out in § 704.5 apply to CAIR reporting requirements. This section contains additional exemptions from reporting that also apply to CAIR reporting requirements. EPA may modify exemptions for CAIR reporting requirements for specific substances by specifying the modification in Subpart D of this Part.

(a) Repackager. A person who is solely a repackager as defined in § 704.203, and does not engage in any other processing activities, is exempt from the reporting and recordkeeping requirements of this Subpart.

(b) Small processor. A person who qualifies as a small processor as this term is defined in § 704.203 is exempt from the reporting and recordkeeping requirements of this Subpart.

(c) Previous submission of data. (1) A submitter who previously provided information on a substance identified in Subpart D of this Part to EPA or another Federal agency on a CAIR reporting form qualifies for a partial exemption from current reporting requirements for that substance and site if the person

previously reported voluntarily or pursuant to previous reporting and recordkeeping requirements of this Subpart. The previously submitted report must have covered a complete corporate fiscal year that ended no more than 3 years before the effective date of the current reporting requirements for the substance, and the data on the previously submitted CAIR form must be current, accurate, and complete for the reporting year determined using the coverage periods specified in Subpart D of this Part.

(2) If the submitter qualifies for this partial exemption because the submitter previously submitted information voluntarily to EPA or another agency, then that person may, in response to a specified reporting requirement on a substance identified in Subpart D of this Part, submit only a completed Section 1 of the CAIR reporting form and a copy of the previous submission. To use this partial exemption, the person must sign the certification set out in Section 1 of the CAIR reporting form that pertains to the use of this exemption.

(3) If the submitter qualifies for this partial exemption because the submitter previously submitted information to EPA pursuant to reporting requirements of this Subpart, then that person may, in response to a specified reporting requirement on a substance identified in Subpart D of this Part, submit only a completed Section 1 of the CAIR reporting form and indicate the date of and the technical contact for the previous submission. To use this partial exemption, the person must sign the certification set out in Section 1 of the CAIR reporting form that pertains to the use of this exemption.

§ 704.212 Questions selected.

- (a) Designated questions. Each person who is required to report on a substance identified in Subpart D of this Part must answer only the CAIR reporting form questions designated in Subpart D. A CAIR reporting form and instructions can be obtained from the TSCA Assistance Office as outlined in § 704.216.
- (b) Specifying the questions. (1) The questions selected will always include Section 1 of the CAIR reporting form.
- (2) Other questions selected will be specified by section or question number (e.g., 3 all or 3.01 and 3.02).
- (i) Whenever the questions selected specify a section of the CAIR reporting form followed by the word "all," each person who is required to report on the identified substance must answer all parts of each question within the section.

- (ii) Whenever the questions selected specify a question from the CAIR reporting form, each person who is required to report on the identified substance must answer all parts of the question.
- (c) One report per site. Each person who is required to report on a substance identified in Subpart D of this Part must report the required information separately for each site at which that person manufactured, imported, or processed the substance.
- (d) Activities on which to report. Each person who is required to report on a substance identified in Subpart D of this Part must report the required information for each activity which occurs at the site. If a person is engaged in more than one activity (e.g. manufacturing and processing) at the same site with respect to the substance, such person is only required to report on the activity or activities specified in Subpart D. If a person is required to report on more than one activity for the same substance, such person must report on all specified activities on the same form.

§ 704.214 Coverage period.

- (a) Each person who is required to report on a substance identified in Subpart D of this Part must comply with the reporting requirement for the coverage period designated in the Subpart D matrix.
- (b) EPA will specify for each reporting requirement the coverage period on which the information must be reported.
- (c) Activities which occurred during a coverage period are reportable if they occurred during the reporting year.
- (d) Persons who were engaged in reportable activities in more than one coverage period must report only on the most recent coverage period in which the activities occurred.

§ 704.215 Reporting period.

- (a) When reports are due. (1) Persons who are required to report on a substance identified in Subpart D of this Part, including those who choose to report for their customers who process the identified substance, must submit their completed CAIR forms during the reporting period identified in § 704.223(a).
- (2) Persons who were notified by a supplier that reporting is required on a trade name substance, must submit their completed CAIR forms during the reporting period identified in § 704.223(b).
- (b) Reporting extensions. Persons who cannot submit their reports by the deadline as specified in § 704.223 may

apply for a reasonable extension of time. Requests for extensions must be made in writing, contain a justification for such requests, and be addressed to: TSCA Document Processing Center (TS-790), Office of Toxic Substances, U.S. Environmental Protection Agency. Room L-100, 401 M St., SW., Washington, DC 20460, ATTENTION: CAIR reporting extension. Extension requests must be postmarked no later than 30 days after the effective date of the addition of a substance or mixture to Subpart D of this Part or 30 days after notification by a supplier as described in § 704.208.

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§ 704.216 How to obtain a CAIR reporting form.

CAIR forms and instructions may be obtained by telephoning or writing the TSCA Assistance Office. Phone Number: (202) 554–1404, TDD (202) 554–0551. Address: TSCA Assistance Office (TS-799), Office of Toxic Substances, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460.

§ 704.217 How to submit completed CAIR reporting forms.

(a) Each person who is required to report on a substance identified in Subpart D of this Part may submit their reports from the individual sites or through the company headquarters. However, a separate report must be submitted for each substance at each site at which the person engages in one or more of the activities for which EPA is requesting information.

(b) Submitters must send their completed forms to: TSCA Document Processing Center (TS-790), Office of Toxic Substances, U.S. Environmental Protection Agency, Rm. L-100, 401 M St., SW., Washington, DC 20466. ATTENTION: CAIR Reporting.

§ 704.219 Confidential business Information claims.

(a) Submitters may assert a Confidential Business Information (CBI) claim for information submitted to EPA only if: the claim is asserted in accordance with this section; and release of the information would reveal trade secrets or confidential commercial or financial information, as provided in section 14(a) of TSCA. EPA will place all information not claimed as confidential in the manner described in this section in the public file without further notice to the respondent.

(b) Submitters who assert a CBI claim for submitted information must provide EPA with two copies of their submission. The first copy must be complete and contain all information being claimed as confidential. The second copy must contain only information not claimed as confidential. EPA will place the second copy of the submission in the public file. Failure to furnish a second copy of the submission when information is claimed as confidential in the first copy will be considered a presumptive waiver of the claim of confidentiality. EPA will notify the submitter by certified mail that a finding of a presumptive wavier of the claim of confidentiality has been made. The submitter has 30 days from the date of receipt of notification to submit the required second copy. Failure to submit the second copy will cause EPA to place the first copy in the public file.

(c) Submitters may assert CBI claims only at the time a completed CAIR form is submitted and only in the specified manner.

(1) Submitters must clearly mark all information claimed as confidential. Submitters can claim information submitted on a reporting form as confidential by placing in the CBI box. which is adjacent to the question, the letter or letters that indicate the category of the information, as enumerated in paragraph (e) of this section, which is being claimed confidential. Respondents who claim information submitted on continuation sheets to the form as confidential must do so by writing the word "Confidential" at the top of the page on which the information appears and by placing brackets ([]) around the

information claimed confidential.

(2) [Reserved]

(d) Submitters must substantiate all claims of confidentiality at the time the submitter asserts the claim (i.e., when the reporting form is submitted). Failure to provide substantiation of a claim at the time the submitter submits the reporting form will result in a waiver of the confidentiality claim, and the information may be disclosed to the public without further notice to the submitter.

(e) EPA has identified six information categories as those which will encompass all claims of confidentiality: Submitter identity = h.

Substance identity=i,
Volume manufactured, imported, or
processed=j,
Use information=k,
Process information=l, and
Other information=m

Submitters who assert a CBI claim on the reporting form must mark the letter or letters (h through m) that represent the appropriate category(ies) of confidentiality for the information in the box adjacent to the question.

Confidentiality claims for information on continuation sheets are asserted by placing the appropriate letter(s) in the margin by the information claimed confidential.

(f) Submitters who assert any CBI claims must substantiate all claims by completing all applicable portions of the CBI substantiation form found in Appendix II of the CAIR reporting form.

9. Subpart D is added to read as follows:

Subpart D—CAIR Specific Reporting and Recordkeeping Requirements

Sec.

704.220 Chemical substance matrix requirements.704.223 Reporting period.

704.225 Chemical substance matrix by CAS registry number.

§ 704.220 Chemical substance matrix requirements.

For each substance listed in the matrix in § 704.225, EPA has identified the persons who must report on that substance by means of the symbols M, I, P, and X/P. An explanation of these symbols is given in § 704.206 of Subpart C of this Part. These designated persons must respond to all of the matrix's reporting requirements. All of the CAIR reporting and recordkeeping requirements are explained in Subpart C of this Part. Persons who are required to report must comply with Subpart C of this Part.

§ 704.223 Reporting period.

(a) Reports must be submitted to the Agency no latter than 90 days after the effective date of the final rule listing the substance in § 704.225, except as described in § 704.223(b).

(b) Persons subject to X/P designations and who chose to notify their customers, must inform their customers that reports are due within 90 days of receipt of notification.

§ 704.225 Chemical substance matrix by CAS registry number.

The following codes are used in this section.

M=Each Person who Manufactured the Substance for Commercial Purposes

I=Each Person who Imported the Substance for Commercial Purposes

P=Each Person who Processed the Substance for Commercial Purposes
X/P=Each Person who Manufactured, Imported, or Processed the Substance for Commercial Purposes and Distributed the Substance under a Trade Name

(a) List of Chemicals.

CAS No.	Chemical name	Who must report	Exemptions added (+) removed (-)	Coverage period	Questions selected	Effective date
57-56-7	Hydrazinecarboxamide	M, X/P, I, P.	•••••	2/8/87-2/5/89	1, 2.08, 2.12, 2.13, 9.02 9.03, 9.06	2/6/89
60–35–5	Acetamide (Ethanamide)			2/8/87-2/5/89	1, 2.01, 2.04 thru 2.06, 2.08, 2.12 thru 2.14, 2.17, 3.04, 9.04 thru 9.07	2/6/89
79–27–6	Ethane, 1,1,2,2-tetrabromo	M, X/P, I, P.		2/8/87-2/5/89	1, 2.08, 2.12, 2.13	2/6/89
85-01-8	Phenanthrene	M, X/P, I, P.	•••••••	2/8/87-2/5/89	1, 2.01, 2.03, 2.05 thru 2.08, 2.11 thru 2.14, 2.16, 2.17, 9.02, 10.05, 10.06	2/6/89
91-08-7	Benzene, 1,3-diisocyanato-2-methyl- (2,6-Toluene diisocyanate).	X/P, P		2/8/87-2/5/89	1, 2.04 thru 2.09, 2.11 thru 2.16, 3 all, 4.01 thru 4.05, 5 all, 6.05, 7.01, 7.03 thru 7.06, 8.01, 8.05, 8.06, 8.23, 9.01 thru 9.15, 9.19, 9.20, 9.22, 10.01, 10.02, 10.05, 10.08 thru 10.16, 10.23	2/6/89
		M, I		2/8/87-2/5/89	1, 2.04 thru 2.09, 2.11 thru 2.16, 3 all, 4.01 thru 4.05, 5 all, 6.05, 7.01, 7.05, 7.06, 8.01, 8.05, 8.06, 8.23, 9.01 thru 9.15, 9.19, 9.20, 9.22, 10.01, 10.02, 10.05, 10.09 thru 10.16,	2/6/89
	2-Naphthalenesulfonic acid, 6-amino- (Broenner's acid).		•••••	2/8/87-2/5/89	10.23 1, 2.01, 2.04 thru 2.06, 2.08, 2.11, 2.12, 2.17, 3.04, 4.01, 9.07, 10.05, 10.06	2/6/89
101–14–4	<pre>3enzenamine, 4,4'-methylenebis[2- chloro- (MBOCA).</pre>			2/8/87-2/5/89	, 9.01, 9.03, 9.06, 9.08, 9.12, 9.15	2/6/89
115–96–8	Ethanol, 2-chloro-, phosphate (3:1) (Tris(2-chloroethyl) phosphate).	·		2/8/87-2/5/89	1, 2.01, 2.03, 2.05 thru 2.08, 2.11 thru 2.14, 2.16, 2.17, 9.02, 10.05, 10.06	2/6/89
	Pyrene (Benzo[def]phenanthrene)	M, 1		2/8/87-2/5/89	1, 2.01, 2.03, 2.05 thru 2.08, 2.11 thru 2.14, 2.16, 2.17, 9.02, 10.05, 10.06	2/6/89
563-41-7	Hydrazinecarboxamide, monohy- drochloride (Semicarbazide hydro- chloride).	M, X/P, I, P.	***************************************	2/8/87-2/5/89	I, 2.08, 2.12, 2.13, 9.02, 9.03, 9.06	2/6/89
584-84-9	Benzene, 2,4-diisocyanato-1-methyl- (2,4-Toluene diisocyanate).	X/P, P		2/8/87-2/5/89	1, 2.04 thru 2.09, 2.11 thru 2.16, 3 all, 4.01 thru 4.05, 5 all, 6.05, 7.01, 7.03 thru 7.06, 8.01, 8.05, 8.06, 8.23, 9.01 thru 9.15, 9.19, 9.20, 9.22, 10.01, 10.02, 10.05, 10.08 thru 10.16, 10.23	2/6/89

		1100-	Exemp- tions			
CAS No.	Chemical name	Who must report	added (+) removed (-)	Coverage period	Questions selected	Effective date
		M. I		2/8/87-2/5/39	1, 2.04 thru 2.09, 2.1 thru 2.16, 3 all, 4.0 thru 4.05, 5 all, 6.05 7.01, 7.05, 7.06, 8.01 8.05, 8.06, 8.23, 9.0 thru 9.15, 9.19, 9.20 9.22, 10.01, 10.02 10.05, 10.09 thru 10.16	2/6/89
524-92-0	Disulfide, dimethyl (Dimethyl disul fide).	M, 1		2/8/87-2/5/89	10.23 1, 2.01, 2.03, 2.05 thru 2.08, 2.11 thru 2.14 2.16, 2.17, 9.02, 10.05 10.06	2/6/89
1321-38-6	Benzene, diisocyanatomethyl- (Un specific toluene diisocyanate).	X/P, P.,		2/8/87-2/5/89	1, 2.04 thru 2.09, 2.11 thru 2.16, 3 all, 4.01 thru 4.05, 5 all, 6.05 7.01, 7.03 thru 7.06 8.01, 8.05, 8.06, 8.23 9.01 thru 9.15, 9.19 9.20, 9.22, 10.01 10.02, 10.05, 10.06	2/6/89
		М, 1		2/8/87-2/5/89	10.08 thru 10.16, 10.25 1, 2.04 thru 2.09, 2.11 thru 2.16, 3 all, 4.01 thru 4.05, 5 all, 6.05 7.01, 7.05, 7.06, 8.01, 8.05, 8.06, 8.23, 9.01 thru 9.15, 9.19, 9.20, 9.22, 10.01, 10.02,	2/6/89
470-11-1	Hydroxylamine, hydrochloride (Hydroxylammonium chloride).	И, X/P, I, P.		2/8/87-2/5/89	10.16, 10.23 1, 2.07, 2.12 thru 2.14, 3.04, 6.03 thru 6.05, 9.01	2/6/89
782-50-5	Chlorine	И		2/8/87-2/5/89	1, 2.05 thru 2.07, 2.11, 4.01, 7.03-thru 7.06, 10.02, 10.08	2/6/89
803–49–8	-lydroxylamine (Oxammonium)	И, X/P, I, P.		2/8/87-2/5/89	1, 2.07, 2.12 thru 2.14, 3.04, 6.03 thru 6.05, 9.01	2/6/89
0039-54-0 .	łydroxylamine, sulfate (2:1) (Hydrox- ylammonium).	И, X/P, I, P.		2/8/87-2/5/89	1, 2.07, 2.12 thru 2.14, 3.04, 6.03 thru 6.05, 9.01	2/6/89
0046-00-1 .	lydroxylamine, sulfate (1:1) (Hydroxylamine acid sulfate).	и, X/P, I, P.		2/8/87-2/5/89	1, 2.07, 2.12 thru 2.14, 3.04, 6.03 thru 6.05, 9.01	2/6/89
6471–62-5 .	3enzene, 1,3-diisocyanatomethyl- (Toluene diisocyanate).	(/P, P		2/8/87-2/5/89	1, 2.04 thru 2.09, 2.11 thru 2.16, 3 all, 4.01 thru 4.05, 5 all, 6.05, 7.01, 7.03 thru 7.06, 8.01, 8.05, 8.06, 8.23, 9.01 thru 9.15, 9.19, 9.20, 9.22, 10.01, 10.02, 10.05, 10.06,	2/6/89
		A, 1		2/8/87-2/5/89	10.08 thru 10.16, 10.23 1, 2.04 thru 2.09, 2.11 thru 2.16, 3 all, 4.01 thru 4.05, 5 all, 6.05, 7.01, 7.05, 7.06, 8.01, 8.05, 8.06, 8.23, 9.01 thru 9.15, 9.19, 9.20, 9.22, 10.01, 10.02, 0.05, 10.06, 10.09 thru 10.16, 10.23	2/6/89

⁽b) [Reserved]
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